



Stéphane Canadas, Sales & Marketing Manager

## A note from our Editor!

Here is our third newsletter, we hope you enjoy reading it and find it informative and useful!

November has been a great month for us, we have launched a new product and attended our second exhibition of the year! We've included all the latest updates in this newsletter.

## The launch of S4 SOLAR XPLORE at Pollutec 2021!

Stéphane Canadas, Sales & Marketing Manager, went to support our French Distributor, Sistec, at the Pollutec Exhibition. Here is how the event went:

"It was nice to be back in France, in Lyon, for Pollutec 2021. This Environment & Energy Trade Show is ideally located to be accessible by most of our European customers and it allows us to have wider technical discussions as sometimes the applications go beyond traditional Emission Monitoring requirements.

It was also a pleasure to support Sistec once again on their stand and be able to demonstrate our current and new products. However, I will admit that the highlight of the event for me was of course the launch of our NEW S4 SOLAR XPLORE Portable heated FID VOC analyser.

This very innovative and compact portable VOCs analyser has been developed to provide a complete solution for the continuous measurements of Methane & Non-Methane HCs. The new addition to our range of gas analysers generated a lot of interest and plenty of positive feedback from the customers visiting the stand.

It is always satisfying to get a good reception from the market about a new product and responding to our customers' needs."



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**Raising gas analysis to new levels**

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# New stove emissions regulation sets minimum standard

From 1st January 2022, a new regulation will impose Ecodesign requirements for solid fuel local space heaters. Regulation (EU) 2015/1185 24/5/2015 describes the requirements which will harmonise energy consumption, particulate matter (PM), organic gaseous compounds (OGC), carbon monoxide (CO) and nitrogen oxides (NOx) emission requirements for solid fuel local space heaters manufactured in the European Union. The regulation is also being applied in the United Kingdom.

Stephane Canadas, Sales & Marketing Manager, welcomes the new regulations, adding: "The latest stoves employ advanced technology that is able to dramatically lower emissions, so a new regulatory framework will help to highlight the benefits of more environmentally friendly products.

"It is also pleasing to note that standard reference methods are specified for the testing of stoves, and we have been supplying test houses with analysers so that they can check existing burners as well as the latest products, both during and after development."

Conscious of the growing public demand for improved air quality and energy efficiency, leading manufacturers have been developing stoves that meet the new requirements, and in some countries testing and approval regimes are in place so that customers can choose products that comply with the new requirements.

Under the Regulation, new solid fuel local space heaters will have to be type-tested to measure the environmental performance of the devices, and all measurements of the combustion products are to be undertaken while the product is providing its nominal output and if appropriate at part load.



**Organic gaseous compounds** from solid fuel local space heaters shall not exceed 120 mgC/m<sup>3</sup> at 13 % oxygen for heaters using solid fuel other than compressed wood pellets; and 60 mgC/m<sup>3</sup> at 13 % oxygen for heaters using compressed wood pellets. Under Annexe III of the Regulation, OGC measurement, as measured in the combustion products of the appliance, shall be extractive and continuous and based on the use of a flame ionisation detector.

**Carbon monoxide (CO)** from solid fuel local space heaters shall not exceed 2,000 mg/m<sup>3</sup> at 13% oxygen for open fronted solid fuel local space heaters; 1,500 mg/m<sup>3</sup> at 13% oxygen for closed fronted heaters using solid fuel other than compressed wood pellets, and 300 mg/m<sup>3</sup> at 13%

oxygen for closed fronted heaters using compressed wood pellets. Under Annexe III of the Regulation, CO measurement shall be extractive and continuous and based on the use of an infrared detector.

**Nitrogen oxides (NOx)** from solid fuel local space heaters shall not exceed 200 mg/m<sup>3</sup> expressed as NO<sub>2</sub> at 13% oxygen for open fronted solid fuel local space heaters, closed fronted solid fuel local space heaters and cookers using biomass; and 300 mg/m<sup>3</sup> expressed as NO<sub>2</sub> at 13% oxygen for open fronted solid fuel local space heaters, closed fronted solid fuel local space heaters and cookers using fossil solid fuel. Emissions of nitrogen oxides shall be measured as the sum of nitrogen monoxide and nitrogen dioxide, and expressed in nitrogen dioxide. Under Annexe III of the Regulation, NOx measurement of

the combustion products shall be extractive and continuous and be based on chemiluminescent detection.

**Particulate matter (PM) emissions** from open fronted solid fuel local space heaters shall not exceed 50 mg/m<sup>3</sup> at 13% oxygen when measured by sampling a partial dry flue gas sample over a heated filter; or 6 g/kg (dry matter) when measured by sampling over the full burn cycle, a partial flue gas sample, using natural draft, from a diluted flue gas using a full flow dilution tunnel and a filter at ambient temperature.

PM emissions by closed fronted solid fuel local space heaters using solid fuel other than compressed wood pellets and cookers shall not exceed 40 mg/m<sup>3</sup> at 13% oxygen when measured by sampling a partial dry flue gas sample over a heated filter; or 5 g/kg (dry matter) when measured by sampling over the full burn cycle, a partial flue gas sample, using natural draft, from a diluted flue gas using a full flow dilution tunnel and a filter at ambient temperature; or 2.4 g/kg (dry matter) for biomass or 5.0 g/kg (dry matter) for solid fossil fuel when measured by sampling, over a 30-minute period, a partial flue gas sample, using a fixed flue draft at 12 Pa, from a diluted flue gas using a full flow dilution tunnel and a filter at ambient temperature or an electrostatic precipitator.

PM emissions by closed fronted solid fuel local space heaters using compressed wood pellets shall not exceed 20 mg/m<sup>3</sup> at 13% oxygen when by sampling a partial dry flue gas sample over a heated filter; or 2.5 g/kg (dry matter) when measured by sampling over the full burn cycle, a partial flue gas sample, using natural draft, from a diluted flue gas using a full flow dilution tunnel and a filter at ambient temperature; or 1.2 g/kg (dry matter) when measured by sampling, over a 30-minute period, a partial flue gas sample, using a fixed flue draft at 12 Pa, from a diluted flue gas using a full flow dilution tunnel and a filter at ambient temperature or an electrostatic precipitator.

The members of the Stove Industry Alliance (SIA), which is based in the UK, have been producing appliances that comply with the requirements of Ecodesign since 2017 when the organisation launched its SIA Ecodesign Ready certification label.

Last year a brand new and independent appliance certification scheme, 'clearSkies', was launched. All appliances within clearSkies are certified as meeting the requirements of Ecodesign. clearSkies Level 3 also confirms that the appliance is Defra exempt for use in a Smoke Control Area. This new scheme also features certification levels (clearSkies Levels 4 & 5) that show where an appliance goes beyond the requirements Ecodesign by producing even lower emissions and having further improved efficiency.

The latest certified wood burning stoves are more sustainable than many other forms of heating because the fuel can be sourced locally, and by burning wood, users can reduce the need for fossil fuels.



SIA Chair, Andy Hill says: "The Ecodesign regulations for solid fuel appliances mean that manufacturers have to meet tough new targets for efficiency, PMs, CO, NO<sub>x</sub> and OGC emissions. Significant investment in product development has been made over the last five years that has vastly improved combustion efficiency and significantly reduced emissions. So much so, that a modern stove that meets Ecodesign produces up to 80% less particulate emissions than a stove that is 10+ years old, and up to 90% less than an open fire."

Looking forward, Stephane Canadas says: "Emissions control regulations now cover every type of combustion source, from wood burning stoves all the way up to power stations, and it is pleasing to see the enthusiasm with which the stove manufacturers have embraced the new regulations. "As a UK manufacturer of reference method gas

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analysers, we have been working closely with a number of test houses and stove manufacturers, to develop emissions monitoring systems that enable the accurate reliable measurement of stove emissions, so it is pleasing to see such significant improvements in the latest certified stoves.

“Clearly, the public is now acutely aware of air quality issues, and the recent problems in the power sector are likely to force many consumers to consider the use of wood burners. Both air quality and climate change will therefore benefit from the fact that the Ecodesign regulation has set a minimum standard, and that stove emissions levels can now be included in purchasing decisions.”

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Under the Regulation, new solid fuel local space heaters will have to be type-tested to measure the environmental performance of the devices, and all measurements of the combustion products are to be undertaken while the product is providing its nominal output and if appropriate at part load.

**For more information on our gas monitoring systems, get in touch with our sales team at [sales@signal-group.com](mailto:sales@signal-group.com).**



*Merry Christmas*  
*and a Happy New Year!*

From all of us here, we wish you a very merry Christmas and prosperity in the coming year.

# Cover your analyser with a level that suits you!

We've announced the launch of a new flexible range of service contracts, which enable customers to determine the level of service required. "No two companies are the same," explains Signal Group Service Manager Roy Kinslow, "so it makes sense for us to offer a tiered-package approach to service contracts.

"Our gas analysers are designed and built for accurate and reliable measurements, but in order to optimise performance, it is necessary to establish a planned maintenance and calibration routine. These new flexible service contracts therefore offer customers the ability to build resilience into their monitoring work; developing plans for unforeseen events and avoiding downtime."



Each of the different service levels include full technical support via phone and email, but customers are able to choose whether their plan should also include features such as scheduled site visits and emergency call-outs. Each service plan also provides extra discount on spares and consumables.

**If you would like more information on our Service Contracts, download our Flyer or get in contact our Service Team at [service@signal-group.com](mailto:service@signal-group.com).**

Plans	Technical Support	Back to Base	On-site Visits	Emergency Callouts	Spare Parts 20% Discount	Spare Parts 15% Discount	Spare Parts 10% Discount
Gold Premium	✓		✓	✓	✓		
Gold	✓	✓		✓	✓		
Silver Premium	✓		✓	✓		✓	
Silver	✓	✓		✓		✓	
Bronze Premium	✓		✓				✓
Bronze	✓	✓					✓

# Video of the month!

Every month we bring you the latest video from Signal Group, this month it's our S4 Wireless Tablet - Graphical User Interface Walkthrough.

Click the image below to watch and don't forget to subscribe to our YouTube Channel so you don't miss out on our latest videos.



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## Latest Product Updates - Introducing the EcoRak!



### Be Ecodesign ready with our state-of-the-art gas analysis system

A high quality gas monitoring system, supplied as a complete transportable package designed specifically for stack emission monitoring and the testing of appliances, boilers and burners for VOCs, CO, CO<sub>2</sub>, O<sub>2</sub>, NO/NO<sub>2</sub>/NO<sub>x</sub>, O<sub>2</sub> emission.

The system is self-contained, being housed in a 19" rack with wheels. The cabinet can house several S4 Gas analysers and ancillary equipment such as cooler, heated sample and handling units which allows the user to have a tool which meets their specific requirements and be able to start taking readings within minutes of switching the system on.

**Request the EcoRak datasheet from our sales team at [sales@signal-group.com](mailto:sales@signal-group.com).**