Sensor Coating Systems Ltd. launches OEM Development Club for Thermal History Coatings

London, UK, February 2013. Sensor Coating Systems (SCS), a leader in temperature detection in harsh industrial environments, today announces the successful formation and launch of a 'User Club' for the development of its core sensing technology, a Thermal History Coating (THC). The club launches with five members, including Alstom (Switzerland) Ltd, MAN Diesel & Turbo (Germany), SNECMA (France) and SCS. With representatives from the US and Europe, and both the aero engine and industrial gas turbine sectors, the User Club's objective is to generically develop the technology in a way that it can be applied in modern engine development programmes to significantly lower development costs and accelerate the introduction of new low-emission engines.

Advantages of the THC

The THC will replace current industry standard thermal paints and offers very significant advantages to companies engaged in the development of aero engines and industrial gas turbines. The technology is robust and non-destructive, thereby enabling multiple tests of components used in the development process without the time and cost penalties of repeatedly dismantling the engine for analysis. A hand held reader is also being developed as part of the system and the assessment of test results will no longer rely on subjective judgement by development engineers. With greater accuracy in the judgement of test results added to very significant savings in costs and development timescales SCS is confident that its new technology will bring great benefits to all who use it.

SCS' THC, originally developed by a team at Imperial College, London, is based on the light emitting properties of a class of ceramic materials, which, when exposed to particular levels of temperature, undergo irreversible changes in the material structure or chemistry. When excited with a probing light the material starts to phosphoresce and this can be observed with specialised optical components to establish a correlation between the observed light and the past temperature. The ceramic material can be applied as a robust coating onto a component using standard manufacturing techniques such as atmospheric air plasma spraying (APS), or, for low temperature regimes, as a paint giving the end-user great flexibility over the coating application. The readout device can be bench based or hand held, the latter enabling in-situ temperature profiling on a component. Unlike existing solutions in the market, the reading of temperature does not require human subjectivity.

This exclusive User Club arrangement gives its members particular rights to future use of the technology and also secures a first mover advantage over non-members. Additionally, the club's development roadmap is aligned with two existing programmes financed by both UK and US governmental agencies, giving the club an advantageous starting position. The programme will run for 30 months and will be open to new members during its first year of operation.

Dr Jörg Feist, managing director, explains: 'The SCS team is extremely proud of bringing this unique and exceptional club of leading industrial organisations together. Under this club arrangement the members will develop confidence in the technology and will assist SCS in defining a new industrial standard for temperature profiling and temperature indicating sensors.'

About Sensor Coating Systems

Sensor Coating Systems Ltd. (SCS) spun out of Southside Thermal Sciences (www.stscience.com) in 2012. SCS pioneers sensor technology based on luminescence materials for engineering applications in demanding environments. Its award winning technology enables accurate temperature detection, corrosion and erosion monitoring and life-time predictions and, in doing so, assists in optimising the operation of machinery, lowering fuel costs and maintaining material integrity. The main industrial sectors for application are the power generation industry, aero engines, automotive and machinery operating in extreme environments such as oil & gas and petrochemical plants.

About Alstom

Alstom is a global leader in the world of power generation, power transmission and rail infrastructure and sets the benchmark for innovative and environmentally friendly technologies. Alstom builds the fastest train and the highest capacity automated metro in the world, provides turnkey integrated power plant solutions and associated

services for a wide variety of energy sources, including hydro, nuclear, gas, coal and wind, and it offers a wide range of solutions for power transmission, with a focus on smart grids. The Group employs 92,000 people in around 100 countries. It had sales of €20 billion and booked close to €22 billion in orders in 2011/12.

About MAN Diesel & Turbo

MAN Diesel & Turbo SE, based in Augsburg, Germany, is the world's leading provider of large-bore diesel engines and turbomachinery for marine and stationary applications. The SBU turbo machinery MAN Diesel & Turbo designs and manufactures gas turbines of up to 50 MW, steam turbines of up to 150 MW and compressors with volume flows of up to 1.5 million m^3/h and pressures of up to 1,000 bar.

About SNECMA

Snecma, part of the Safran Group and based in Paris, France, is a world-class aircraft and rocket engine specialist. Snecma designs, manufactures and supports engines for civil and military aircraft, launch vehicles and satellites.

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