Press release

May 16, 2017

Contact
Bilfinger SE
Ullrich Esser
Carl-Reiß-Platz 1-5
68165 Mannheim
Germany
Telefon: +49 621 459-2486
ullrich.esser@bilfinger.com
http://www.bilfinger.com

Press contact
LEWIS
Rabea Roos
Derendorfer Allee 33
40476 Düsseldorf
Germany
Telefon : +49 211 522 946 0
bilfinger@teamlewis.com
http://www.teamlewis.com/de

Effective and economical: Bilfinger solution for desulfurization of ship engines certified

SOx scrubbers help the shipping industry to conform to environmental rules.

Full steam ahead for maritime flue gas desulfurization: After only around three months of operation, the reference project on board the ocean tanker M/T Aurelia was awarded the International Air Pollution Prevention Certificate by certification company DNV GK on behalf for the German flag. Operated by shipping company Carl Büttner GmbH & Co. KG from Bremen, the ship was fitted out with a new flue gas desulfurization system supplied by Babcock Noell, a subsidiary of Bilfinger SE. This technology uses an absorption process to remove the sulfurous flue gases emitted by the ship. In this way, the ocean tanker meets the latest environmental standards.

“More and more companies are interested in environmental technologies and this now also includes shipping companies. We have decades of experience in industrial plants which we are now putting to good use in ocean shipping. Bilfinger stands for top efficiency, reliability and environmental technologies made in Germany,” says Bilfinger CEO Tom Blades.

Bilfinger is a leading international industrial services provider. The Group enhances the efficiency and environmental compatibility of assets, ensures a high level of availability and reduces maintenance costs. The portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly, maintenance, plant expansion as well as turnarounds and also includes environmental technologies and digital applications.

The company delivers its services in two business segments: Engineering & Technologies as well as Maintenance, Modifications & Operations. Bilfinger is primarily active in the regions Continental Europe, Northwest Europe, North America and the Middle East. Process industry customers come from sectors that include chemicals & petrochem, energy & utilities, oil & gas, pharma & biopharma, metallurgy and cement. With its 37,000 employees, Bilfinger upholds the highest standards of safety and quality and generates an annual output volume of about €4 billion.

Bilfinger's maritime desulphurization system provides ship owners with a solution at just the right point in time. In autumn 2016, the International Maritime Organization (IMO) adopted a resolution to broaden the rules for maritime environmental safety. Prior to this, the Marine Environment Protection Committee (MEPC) had conducted a study to determine the worldwide availability of low sulfur fuels and desulfurization technologies, also known as scrubbers. This study identified a large number of suitable uses for scrubbers. In addition, a decision was made concerning the date on which the international sulfur limit of 0.5 percent is to apply. This threshold is now to become binding on January 1, 2020 when the amended Annex VI to the MARPOL Convention takes effect. The North and Baltic Seas as well as North American coastal waters have already been identified as sulfur emission control areas (SECA), for which a maximum of 0.1 percent has applied since 2015.

Commitment to clean shipping

"The IMO's decision is forcing us ship owners to either use expensive low-sulfur fuel or to install scrubbers on board to filter out the sulfur," explains Lars Bremer, managing director of Carl Büttner Shipmanagement GmbH, the subsidiary responsible for ship operations. In summer 2016, the shipping company launched a pilot project to assess the technological potential of efficient desulfurization on the high seas in a practical trial. To this end, ocean tanker M/T Aurelia was fitted out with a desulfurization system. Sources of sulfur such as the main engine, the auxiliary diesel and the boiler were connected to the system and operated under varying conditions.

The scrubber supplied by Babcock Noell is a hybrid system that operates in different modes, i.e. in either an open or a closed loop. With the system placed in operation without any major incidents, the technology went on to prove itself in the three-month test phase. Andreas Breeger, head of maritime flue gas cleaning systems, Environmental Technologies at Babcock Noell, explains: "Acceptance testing by DNV GL was completed the first time and free of any reservations. As a result, this project milestone was reached within a very short space of time. For this reason, we are confident of being able to drive forward the technology changeover towards low-sulfur ocean shipping."In particular, the enormous economic efficiency of scrubber

systems looks set to generate strong market demand. Payback times are between one and two-and-a-half years.

Sustainability gaining importance
With its numerous services aimed at enhancing energy and process efficiency, Bilfinger is helping to modify industrial plants and components in the light of the growing sustainability requirements. These include various engineering activities and environmental technologies such as flue gas desulfurization for ships, insulation services and the maintenance, conversion, expansion and modernization of industrial plants.

Customers' growing interest in energy and process efficiency is resulting in an increasingly important area of business for Bilfinger. Operators of industrial plants are under strong public pressure and have therefore set themselves ambitious sustainability goals. The industrial service provider's recently published sustainability report demonstrates how important it is for companies such as Bilfinger to meet sustainability criteria. Bilfinger's sustainability report can be downloaded at its website at www.sustainability.bilfinger.com.

Captions

Picture 1: Aurelia
Under the project, a hybrid version of the multi-stream scrubber has been installed on board the Aurelia and can be operated in an open or a closed loop. The captain selects the mode according to the waters in which the ship is traveling.

Picture 2: Scrubber
Scrubber technology has proven itself in industry for 40 years. The process has now been modified for use in shipping in the light of maritime conditions and the flue gas to be filtered.

All rights to images reserved.