

Clyde Bergemann News

Clean Energy Solutions

Edition 01/10



🔴 Biomass – a global buzzword for energy generation

Co-firing at coal-fired power plants, combustion at dedicated biomass facilities or at waste-to-energy stations – biomass as a fuel is increasingly becoming an accepted source for energy generation. Its main advantage over other renewable sources is a stable power supply that is suitable for baseload service. Its benefit over fossil fuels is the low CO₂ emission. For example, waste-to-energy emits 60% less CO₂/kWh than a coal-fired power plant and 20% less than a gas-fired power plant. At the World Economic Forum in Swiss-based Davos in 2009, waste-to-energy was identified as one of eight emerging green technologies. Guaranteed feed-in tariffs for biomass-based power already exist in many countries worldwide and act as a further market driver. >> Page 2

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☐☐☐ Biomass – a global buzzword for energy generation

There are also limitations. Right now, woody biomass is still more expensive on an energy equivalent basis than coal. As 20 to 45% of the production costs are fuel costs (including transport costs), plant location should be quite close to the fuel source.

Definitions of biomass vary to include the following feedstocks: wood and wood wastes from forestry and industry, agricultural residues from harvesting or processing, specifically grown energy crops, food waste from food and drink manufacture as well as industrial waste and co-products from manufacturing and industrial processes.

Out of six possible conversion processes, combustion is the predominant way of utilisation. However, gasification could expand its share in the future. Co-firing has been demonstrated successfully in more than 150 installations worldwide.

Actually, 2009 has been a year of strong impulses in North America for biomass conversion to energy. According to the Biomass Power Association as of November 2009, there are 102 biomass plants in 21 states that generate electricity. Biomass power accounts for 2% of America's electricity and for more than half of all the renewable power generated in the U.S. Ongoing future growth is likely in North America due to the large surpluses of wood waste. In addition, more and more federal states call for a certain percentage of the electricity to come from renewable sources. One of the State's largest biomass-fuelled project is currently the 100 MW Nacogdoches Generating Facility, which Southern Power acquired from American Renewables in October 2009. In March 2009, Southern Company got approval to convert its 96 MW plant Mitchell to biomass.

The company is evaluating the feasibility of converting five additional coal plants to biomass as well. This could also end up being the solution for many of America's old, small, polluting coal-burning power plants. Retrofitting such plants with scrubbers to comply with federal clean-air mandates is very costly. Switching the plants to biomass might be a more cost-efficient solution.

When looking at Europe's biomass development, especially the huge number of projects announced by the UK, is remarkable. The country has set profitable conditions: power generation out of biomass will be granted with GBP 80 per MWh on top of regular wholesale price. CHP generation from biomass is granted GBP 99 per MWh. In 2009, UK companies have submitted plans for more than 2.5 GW of biomass-based electricity. Among these are huge projects such as the two 295 MW facilities in Port of Tyne and Teesport by MGT Power and the three 300 MW plants by Drax. From June 2010, the 4 GW thermal plant at Drax will have the capability of displacing up to 10% of its coal throughput with biomass – equivalent to 400 MW, which will be the largest biomass co-firing facility in the world.

Due to their large agricultural sector, many Asian countries have massive biomass resources. The Bangalore-based Indian Institute of Science has estimated that the use of farm waste can lead to generation of 18 GW of electricity in India. According to the latest figures of the Indian Ministry of New and Renewable Energy, the existing 2 GW of grid-connected generation capacity is split into two thirds bagasse-fuelled CHP and one third biogas-operated stations. Besides high deduction rates and tax benefits, the feed-in tariff has been increased recently to gain further investors.

Thailand's renewable energy policy has attracted the interest of companies seeking to develop power and cogeneration projects under the Kyoto CDM (CDM = Clean Development Mechanism). This arrangement allows industrialised countries with an emission reduction commitment to invest in ventures that lower emissions in developing countries to gain emission vouchers. German utility EnBW just announced its intention to build up to 120 MW biomass-based plants in Thailand.

"Systems for reliable biomass fuel handling, combustion air optimisation, waste heat recovery or on-load boiler cleaning – the Clyde Bergemann Power Group provides suitable solutions to support biomass generated electricity. With the recent acquisition of Clyde Bergemann Brinkmann we now offer burners designed for use at biogas facilities," explains Franz Bartels, President & CEO of the Clyde Bergemann Power Group.

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❖ New business field “Firing Solutions” offers tailor-made burners and heating systems for thermal processes

With the acquisition of German-based Walter Brinkmann GmbH, the Clyde Bergemann Power Group enhances its portfolio with another piece in the thermal processes value-added chain. Founded in 1883, the company specialises in engineering and manufacturing of industrial burners and turn-key heating systems. The product range of Walter Brinkmann will be integrated into the Clyde Bergemann Power Group portfolio as the new business field “Firing Solutions”. Bachir Chalh-Andreas will continue to lead the company under the new name Clyde Bergemann Brinkmann (CBBM), effective since 1 August 2009. The company is located in Werdohl, North Rhine-Westphalia, Germany and currently has 40 employees.

CBBM offers process burners and heating systems for applications which require tailor-made firing technology. The company became a specialist for high demanding process requirements such as:

- Unsteady pressure and pressure ratio respectively, ranging from vacuum up to high values
- High temperatures, e.g. up to 1,650°C in the steelmaking process
- Inert gas atmosphere, e.g. by nitrogen
- Oxyfuel applications with diesel, gas and pulverised coal
- Use of multiple fuels

The last requirement especially is becoming increasingly important when an economic operation is requested. CBBM’s multi-fuel burners give customers the needed flexibility to utilise the cheapest applicable fuel.



The business fields of Clyde Bergemann Power Group

Furthermore, CBBM’s burners are able to handle process gas of a low calorific value, which is traditionally difficult to combust, and consequently recover this energy.

In the area of coal gasification for the petrochemical and power sector, CBBM has already equipped its first facilities. CBBM is an authorised supplier for the Shell Coal Gasification. Future applications for gasification will be biomass and heavy oil.

The company is market leader in oil-oxygen lance burners in the class of up to 300 MW.

For more than a century, the steel industry is an established market of CBBM. Further markets are the lime and copper industry.

“The know-how of Walter Brinkmann leverages our established application field for coal-fired power generation by coal gasification and supports our entry into the market of gas-based thermal processes by key components,” says Franz Bartels, President & CEO of the Clyde Bergemann Power Group, to emphasise the strategic dimension of this acquisition.

The CBBM portfolio at a glance:

Steel industry

L-HOB lance burners and equipment (HOB = Heating and Oxygen Blowing)

Standby-burners for preheating and drying in vacuum degassing vessels

Ladle and tundish heaters for drying and heating

Lime and copper industry

Burner (pulverised coal, oil and gas) with oxygen or air

Heating systems

Coal and biomass gasification, petrochemical applications

Start burners

Ignition burners

Products for special purposes

Burners for high and low calorific gases

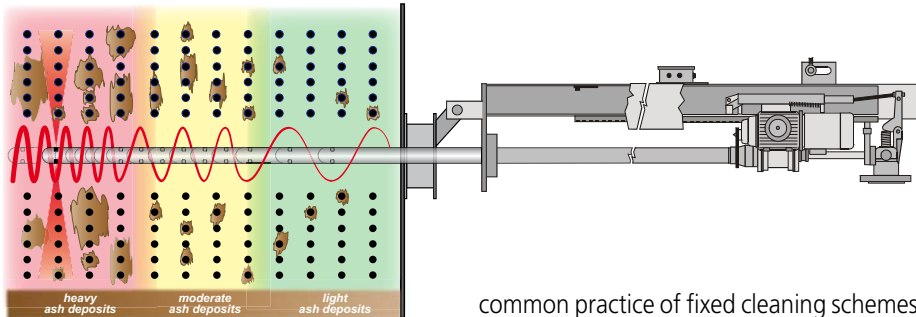
Multi-fuel burners

Hot gas generator, special burner concepts

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❑ A new dimension of flexibility – SMART Helix for on-load superheater cleaning in coal, waste and biomass fired boilers



SMART Helix design and operation concept

Superheater areas present a challenge to conventional on-load boiler cleaning systems due to their non-uniform deposit characteristics. Operators are forced to make a decision either to select cleaning parameters, such as blowing pressure, to match the requirements of zones with less deposits while areas with severe deposits stay insufficiently cleaned, or select cleaning parameters to remove severe deposits. This intensified cleaning however may lead to tube wear in zones with less or no deposits.

Build-up of ash deposit is influenced by factors which frequently change during operation. To meet this challenge and to achieve efficient cleaning results, a flexible system is required for on-load boiler cleaning.

SMART Helix is a long retractable sootblower on which the cleaning parameters can be adjusted to different cleaning needs. This zone-based approach ensures you have the right tool for specific superheater requirements. Traversing and rotational speed, blowing pressure, blowing angle as well as special cleaning modes, e.g. lance oscillation, can be defined according to the characteristics of local ash deposits.

The unique dual-motor design of SMART Helix allows independent and variable traversing and rotational speeds. The

common practice of fixed cleaning schemes belongs to the past. The traversing speed is not only adjustable to the deposit situation but the lance can also be retracted at a much faster speed than entering the boiler to avoid material damage while minimising steam or air consumption. Intense cleaning at zones with severe deposition can be achieved by setting the traversing speed to zero while continuing rotation. The traversing speed and the rotational speed can both be set to define a variable helix which provides highly flexible cleaning depending on the local conditions of each superheater zone.

As a result, zones with minor deposits are passed quickly by SMART Helix while heavily deposited zones are cleaned with slow traversing and rotational speed.

SMART Helix allows 'repeated' cleaning of areas without requiring the lance to be returned to its starting position and then restarted. For this purpose, zones are defined along the path of the lance. Blowing pressure and blowing angle are also freely adjustable, e.g. for oscillating operation.

There are two sootblower types available with SMART Helix technology inside, RX-SMART Helix and RX-SMART Helix-W. RX-SMART Helix uses steam or air, RX-SMART Helix-W uses water. Water as a cleaning medium is recommended for incinerators and biomass-fired stations as local deposits tend to be very complex and difficult to remove.

RX-SMART Helix-W is a complete system consisting of a long retractable sootblower, a control unit as well as units for pump, water inlet and outlet. The water streams for cleaning and cooling water can be controlled separately. This ensures that the water-jet can be directed quickly and precisely to carry out the cleaning without thermally affecting neighbouring tube material.

Several plants are already installed with both types of SMART Helix technology.

The advantages of SMART Helix:

- All cleaning parameters can be freely adjusted to local ash deposition conditions for optimum cleaning results
- RX-SMART Helix avoids possible tube wear due to erosion
- RX-SMART Helix-W avoids thermal stress to tube material by targeted cleaning
- SMART Helix uses steam, air or water efficiently – compared to conventional sootblowers steam savings of up to 60% are possible
- Superheater cleaning with SMART Helix increases plant availability and improves heat transfer thus enhancing plant efficiency
- SMART Helix combined with sensor based diagnostic tools out of the SMART CLEAN ISB Platform turns into a fully automated on-load boiler cleaning system that can be directly integrated into your control system

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First SMART CLEAN ISB system in Latin America



Comision Federal de Electricidad's Petacalco Power Station in Mexico

In the month of October, Clyde Bergemann, Inc. (CBA), based in the USA, received an order for their first SMART CLEAN ISB system (ISB - Intelligent Sootblowing) in Latin America. The end user is Comision Federal de Electricidad (CFE), the power generating company in Mexico, for the Petacalco power station. The scope includes SmartUS sootblowers, SmartCannons, SmartControls, SmartGauges (SHFM), SmartConvection (Thermodynamic Model – TDM), Targeted Cleaning Control Module and SmartSensors, with a total value over US\$1.9M.

the Pacific coast of Mexico and has six 350 MW Combustion Engineering (CE) tangentially fired units, plus one MHI 700 MW supercritical unit. The plant has been experiencing years of problems trying to maintain the availability of the sootblowing system which was causing unscheduled boiler outages due to tube leaks caused by falling molten slag, plugging problems in the superheater and reheater sections, as well as other related issues. This in turn resulted in high maintenance costs.

On learning about these issues, CBA gathered actual data on operating conditions, the coal being used, maintenance costs and economic impact for lost revenues, all of which were being fed to the Boiler Cleanliness Configurator. As a result of the information gathered, CBA finally proposed the SMART CLEAN ISB system.

The impact that a SMART CLEAN ISB system would have on the boiler, including improvement on the heat rate, was presented to the customer. After several meetings, the customer was confident of the proposal and the contract was issued to CBA as the sole source of supply. CBA's representative in Mexico would handle the project.

Petacalco power station will replace all existing on-load cleaning equipment with SMART CLEAN ISB systems.

CFE has three coal-fired plants in Mexico with a total of 14 units. All are 350 MW on CE and Foster Wheeler boilers. Installation plans are one or two SMART CLEAN ISB systems per year.

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❑ New production unit in India to supply on-load cleaning to refinery

Clyde Bergemann India has made a foray into the Indian sootblower market with a prestigious order from Thermax Limited for the supply of on-load cleaning for two 750 tph pulverized coal-fired boilers for the captive power plant of a refinery in the western coast of India. The order for 176 sootblowers was won against stiff competition. These units will be supplied from the upcoming new production unit of Clyde Bergemann at Noida (UP), India.

Thermax Limited, a US\$ 800M company, provides a range of engineering solutions to the energy and environment sectors and is a leading industrial and fluidised bed boiler manufacturer in India.

With this order of two 750 tph boilers, Thermax has entered into the pulverized coal-fired boiler segment in India with technology support from Babcock & Wilcox, USA.

At the time of going to press, Clyde Bergemann India secured orders from Doosan Babcock Energy India Pvt. Ltd., IJT and Enmas Andritz Pvt. Ltd., for the supply of on-load cleaning from the new production unit.

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❑ Clyde Bergemann unveils Portable Sorbent Injection test units



One of Clyde Bergemann's Portable Sorbent Injection test units

The demand for plants to meet stringent air pollution control regulations has driven the need for site specific testing. Sorbent injection testing allows each plant to optimise injection rates and locations to meet their specific plant configuration and environment. The Clyde Bergemann Portable Sorbent Injection (PSI) unit has the ability to carry out full scale sorbent injection testing that can provide the critical information necessary to economically meet air pollution control requirements.

The PSI unit is available for injecting sorbents such as Powder Activated Carbon (PAC), hydrated lime, trona and sodium bicarbonate as well as many others.

The sorbent required for testing will be stored in a portable silo which has a horizontal storage design and does not require cranes or other lifting devices.

The unit rests on four adjustable legs to allow for field leveling. Load cells are placed under each leg to provide a 'loss in weight' feed control of sorbent. The portable silo is filled via a standard 4" PD truck fill line. Sorbent is blown into the portable silo using a standard PD truck mounted blower and the portable silo is vented through an onboard dust collector.

Each of the three discharge hoppers feed a screw conveyor which transfers sorbent via a variable speed drive. The feed rate is controlled via the 'loss in weight' provided by the load cells. An additional carry screw lifts the sorbent to the required height for discharge into the Sorbent Feed Trailer. The Sorbent Control Trailer houses the PLC controls, motive air blowers and final feed devices.

There are two different Sorbent Control Trailers available, PSI-C and PSI-T. The PSI-C is specifically designed to handle various types of PAC and the PSI-T is specifically designed to handle various types of sorbents such as hydrated lime, Trona & Sodium Bicarbonate.

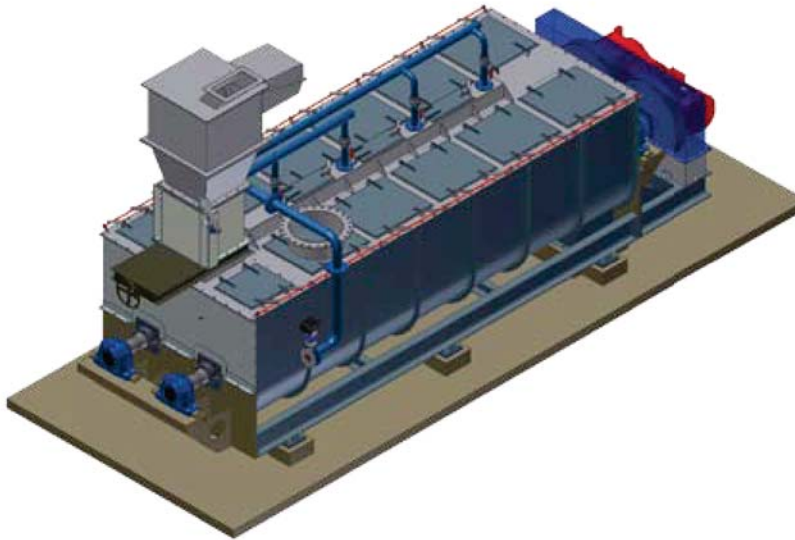
All injection rates are 'loss in weight' driven providing the accuracy needed to optimise testing results.

The Sorbent Control Trailer is a self contained unit. Only 480 VAC power supply from a 200 amp service is required.

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❑ US\$ 50M order awarded for handling of Medupi's fly ash



Ash conditioning system (left image) and MD pump outlet (right image)

South African electricity producer Eskom signed the contract to equip all six supercritical 800 MW boilers of its Medupi power station, which is currently under construction, with ash handling technology by the Clyde Bergemann Power Group (CBPG).

The order, worth around US\$50M (R400M), has been awarded to Clyde Bergemann Africa (CBZ), the South African subsidiary of the CBPG.

CBZ will be responsible for the design, construction, supply and commissioning of the fly ash handling and conditioning systems. This includes the removal of fly ash from the baghouses to the storage silos and thereafter conditioning of fly ash onto overland conveyor belts. The project will be executed in six stages having similar ash conveying systems and two silo aeration and conditioning systems.

As part of the company's contractual obligations with Eskom's ASGISA requirements (Accelerated Shared Growth Initiative of South Africa), the majority of equipment will be sourced from within South Africa and CBZ will train a compliment of seven technical people on the project. Furthermore, for the CSDP requirements (Competitive Supply Development Programme) on the contract, CBZ will set up a facility for component manufacturing.

CBZ has already successfully installed ash handling systems at Eskom's power station Matla and Kriel. The fly ash handling order is the second large order CBPG received on the new power station build programme of Eskom, the first being for the supply of the on-load boiler cleaning solutions of both Medupi and Kusile power stations. This order was awarded to Clyde Bergemann Germany by Hitachi Power Europe in November 2008.

CBZ Managing Director, Jaco van der Westhuizen comments: "The bid was fiercely contested by all our traditional competitors. We believe in our products and the technology we offer and we have a track record for delivering excellent service at reasonable cost. Our people are passionate, committed and dedicated and submitted a tender of exceptional quality. I think this gave us the edge."

Franz Bartels, President & CEO of the CBPG, congratulated CBZ for winning the bid. "We are proud to be associated with a project that will meet the challenges of South Africa's economic growth forecast and we are looking forward to be part of the country's exciting future."

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❑ New 800 MW coal-fired plant in Germany receives dry bottom ash handling



Typical Clyde Bergemann DRYCON system conveying to a silo

German-based AE&E Inova awarded the contract for a dry bottom ash handling system at the new 800 MW hard coal fired Lünen power plant, located in North Rhine-Westphalia, Germany to Clyde Bergemann.

As an eco-friendly alternative to water, DRYCON uses fresh air to cool bottom ash while conveying. The wet bottom ash handling method is still the main process worldwide but growing environmental awareness in industrialised countries and increasing water shortage at many power plants are resulting in a shift to the dry technique.

A special advantage of DRYCON is the additional gain of heat energy from ash with the re-burning effect. For this, Clyde Bergemann applies a hydraulic driven jaw type crusher/slide gate combination, located between the furnace and the DRYCON system, which crushes hot ash lumps directly where they appear. The hot ash lumps are instantly reduced to many small ones, falling down to the DRYCON conveyor belt where air in counter-current flow fans the re-burning effect. This reduces the unburned carbon level and frees up additional thermal energy which is returned to the steam generating process within the boiler. This arrangement increases boiler

efficiency, reduces coal usage and CO₂ emissions.

In comparison to wet bottom ash handling, DRYCON has lower life-cycle costs and as no precious water is wasted for ash cooling and conveying, all related water treatment costs are avoided. By using dry bottom ash handling, the ash quality is ready for sale to the construction and cement industries for re-use.

The scope of supply comprises engineering, delivery, erection and commissioning of DRYCON, crusher plant, ash conveying system, ash silo including steel works for storage and unloading facilities as well as supply of a control system which will be connected to the control room.

The DRYCON system's appeal is its robust and modular design features, both of which have been proven in numerous applications. In particular, the modular design is a significant contributor to economical plant operation. It ensures that the length-width ratio of the conveyor can be adjusted to suit the individual plant and process conditions. This guarantees efficient ash cooling at maximum extraction rate making DRYCON a technologically advanced solution for dry bottom ash handling.



DRYCON jaw crusher and slide gate

Another remarkable feature is the conveying angle available from the chain based transportation method. For example, in an Asian reference, a conveyor with an angle of 40° was achieved. This design flexibility is important for both new-builds and retrofits.

Besides DRYCON, Clyde Bergemann offers a comprehensive range of solutions for fly and bottom ash conveying as well as for bulk-materials handling. With its engineering and turn-key skills, the company has become a market leader. Worldwide, Clyde Bergemann has built an installed base of over 500,000 MW in coal-fired power stations.

"We are very proud of having now our first DRYCON reference in Germany. Several power plants outside Europe are already equipped with our system. It is an enormous success for us to apply our DRYCON solution to this high efficient power plant and it is demonstrating our competitiveness," amends Franz Bartels, President & CEO of the Clyde Bergemann Power Group.

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Further ash handling success at Sulcis power plant in Italy



ENEL's Sulcis power plant in Sardinia, Italy

Clyde Bergemann EP Tech S.r.l. (CBEPT) has once again gained the trust of ENEL with an order for the turn-key supply of a pneumatic ash handling system serving two existing silos, for an overall distance of more than 1.1 km in the Sulcis power plant located in Sardinia, Italy.

The above system consists of two 50 t/h lines conveying mixed fly and bottom ash coming from the coal-fired boiler of unit 2. Each system is completed with a common compressor station, pipe works, revamping of the upstream 3,000 cum silo as well as of the downstream 6,000 cum silo.

This represents one of the most important projects won by CBEPT and one of the longest conveying distances ever approved within the Italian market for the dense phase technology for ash pneumatic conveying. With this system ENEL will improve the environmental conditions of the power plant and save the costs relevant to the transfer of the ash currently carried out by trucks.

This contract completes the activities carried out at the plant over the last two years by CBEPT, from the initial enquiry to the complete turn-key supply. This project is the first significant intergroup cooperation for CBEPT with the Clyde Bergemann Power Group and represents a promising synergy for the future and further success in the industry.

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Second materials handling order received for gasifying and melting furnace in Albano Laziale Waste-to-Energy plant



Bucket elevator for the molten slag treatment system

Pursuing its expansion in the waste-to-energy market in the Mediterranean area, Clyde Bergemann EP Tech S.r.l. (CBEPT) has received a new purchase order for the second line of complete material handling technology for the gasifying and melting furnace in Albano Laziale WtE plant.

The order was placed by JFE Engineering Corporation in September 2009 after the successful result of the identical order placed December 2009 and January 2009 for the first line.

The scope of supply consists of the following: a submaterial feeding system that feeds materials to the furnace of the plant in order to complete the combustion of waste; a molten slag treatment system that recovers the by-product of the combustion under the furnace and, after screening and metal separation, stores it in different yards; a return ash feeding system that recovers coarse and fly ash and

conveys it back to the furnace; a hydraulic system for the RDF feeding.

Antonio Scala, CBEPT Sales Engineer commented: "CBEPT has been selected again thanks to high competence and experience, as well as accurate attention to the needs and the requirements of the customer, confirming once again the philosophy of a customer oriented Clyde Bergemann company. This important result strengthens our relationship with a prestigious customer, JFE Engineering, who we have worked together with since commercial stage, with a high spirit of cooperation and teamwork, projecting CBEPT towards the fields of alternative fuels power generation and new combustion processes".

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Metso Corporation awards fabric filter baghouse contract for US biomass plant

Clyde Bergemann EEC (CBEEC) has received the contract from Metso Corporation to provide a pulse jet fabric filter baghouse for the Nacogdoches biomass plant in Nacogdoches County, Texas. This US\$ 3.5M order was procured after an intense two-year sales process between Metso and CBEEC.

CBEEC employees and the local manufacturer's representative worked to build and maintain strong relationships

with all members of the Metso Nacogdoches project team during this entire sales process. CBEEC won the project against four other baghouse suppliers by offering a complete system with a small overall footprint, lower air-cloth ratio and superior bag life. Additional synergy savings will be seen by Metso through the procurement of other Clyde Bergemann products for the Nacogdoches project. This new plant, which will burn wood and wood residue, is scheduled to come on line in 2012.

The modular baghouse for the plant will have 12 compartments, which contain 360 Ryton bags each and each bag is approximately 26 feet in length. The baghouse is designed to handle a gas flow of 610,000 ACFM. The fully engineered system will be delivered to site by the end of 2010.

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Queens Award success for Scottish engineering company



Clyde Bergemann Ltd's longest serving employee, Bert Oxford, accepts the presentational crystal bowl on behalf of the company

Two representatives from Clyde Bergemann Ltd of Scotland (CBS), visited Buckingham Palace in 2009 after the firm was awarded the equivalent of a company knighthood in this year's Queens Award for International Trade.

Three weeks prior to the Palace reception, hosted by Her Majesty The Queen and other members of the Royal Family, CBS was also presented with the Queens Award Grant of Appointment and Award presentational crystal bowl by the Lord Lieutenant of

Glasgow. Bert Oxford, CBS's longest serving employee accepted the award on behalf of the company at CBS's office in the east end of Glasgow.

CBS won its Queens Award in the International Trade category in 2009 for demonstrating growth and performance in overseas markets for the supply of on-load boiler cleaning technologies designed to improve thermal efficiency and reduce harmful emissions on fossil fuelled applications.

Over recent years a reorganisation of internal processes has given CBS the ability to be cost competitive in both overseas and domestic markets with a high level of outsourcing from lower cost suppliers. Implementing lean management techniques within the business has also reduced project lead times and enhanced delivery performance to ensure maximum customer satisfaction.

Jeff Hudson, Managing Director of CBS, comments, "Receiving the Queens Award for International Trade is a great honour for our business recognising a continuing level of success and development which must be attributed to the commitment, loyalty and knowledge of our workforce combined with the continuing support and investment received from the Clyde Bergemann Power Group. Success which is particularly satisfying in view of the current challenging economic environment."

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Technology seminar held for the UK's power market

In light of growing investment in reducing emissions in the UK's power industry, Clyde Bergemann Power Group (CBPG) took the opportunity to share information about new and existing technologies in the CBPG product portfolio which are designed to, not only reduce emissions, but also to enhance plant efficiency and reduce operating costs.

The seminar, which was held in Leeds, England in November 2009, brought together specialist engineers from many of the UK's major coal-fired power plants who learned about CBPG's capabilities in boiler efficiency, materials handling, air pollution control, energy recovery, air-gas handling and firing solutions.



Seminar attendees at the Hilton in Leeds, UK

The one-day event allowed for networking opportunities and CBPG representatives were able to gather the thoughts of key people in the UK power market as to where we are best suited to support them.

The recent follow-up study, based on our post-event surveys, showed a large interest in many of our product areas, in particular, boiler cleaning, materials handling, air

pollution control and air-gas handling. All attendees will be contacted by key representatives of CBPG to discuss further their specific areas of interest.

A presentation CD can be obtained from the attached contact.

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International Sales Conference of the Clyde Bergemann Power Group

The annual Clyde Bergemann Sales Conference took place from the 12th to the 13th of November 2009 in Wesel, Germany. More than 100 key personnel of the Group's research and development and sales departments congregated to share knowledge and experience of new products, projects and market developments.

Steve Whyley, Director Sales & Marketing, Doosan Babcock Energy Limited, UK and Dr. Detlef Haje, Principal Engineer at Siemens in Germany completed the Sales Conference agenda as guest speakers. Steve Whyley analysed how the economic recession impacted the demand for coal-fired boilers.

He also showed scenarios of the American and European power boiler markets by different extent of economic recovery and future environment policy.



Members of the Sales Conference congregate at the Welcome Hotel in Wesel, Germany

Dr. Detlef Haje presented the benefits of the combined usage of solar thermal power plants with steam turbines.

Events Diary

FEBRUARY	MARCH	APRIL / MAY
Energy & Environment Conference 1st - 3rd Feb, Phoenix, AZ-USA	Western Regional Boiler Conference 16th - 18th Mar, Seattle, WA-USA	NAWTEC 11th - 13th May, Orlando, FL-USA
NTPC International O&M Conference 13th - 15th Feb, New Delhi, India	Russia Power 24th - 26th Mar, Moscow, Russia	Electric Power 18th - 20th May, Baltimore, MD-USA
VGB Conference "Maintenance in Power Plants" 24th - 25th Feb, Bremen, Germany		

Personnel Developments



Michael Falk joined **Clyde Bergemann Power Group** as **Group Director Risk Management**. Michael Falk will identify potential risks of our projects worldwide and take action to avoid or at least minimise them to an acceptable level.



Caren Borges has been appointed as **Group Human Resources Manager of Clyde Bergemann Power Group**. Caren Borges will be responsible for this function in addition to her current position as Group Controller.



Philipp Hammans started work at **Clyde Bergemann Power Group** as **Group Intellectual Property & Technology Manager**. In this function, Philipp Hammans will ensure protection and further development of the Group intellectual property and know-how. He will also monitor and evaluate external technological developments to initiate new technological approaches.

Editorial

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