

Global lime industry meets to share experience

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From 12.10.-14.10.2016, around 150 delegates from 25 countries and 18 exhibitors met in Washington DC for the General Assembly of the International Lime Association (ILA).

The event kicked off with a welcome reception in the exhibition area. This gave the delegates a first chance to exchange ideas and information and find out about the products and services offered by the exhibitors.

The second day was devoted to the technical session, the Information Exchange Forum (IEF). In 20 talks, the delegates were updated on the current situation in the industry and its prospects for the future. In one block of talks, representatives from industry and research presented their products and portfolios for the lime industry.

Reports on global lime industry

In his welcoming address, the current ILA President, Wayne Brown, South Africa, thanked the organizers, the German team led by Secretary General Udo Kremer, for their perfect preparation of the event. He stressed that the industry had worked hard. A significant aspect in this regard was, he continued, the training of its employees.

Udo Kremer, ILA Secretary General, Germany, briefly outlined the development of the ILA. From the beginning, the event has boasted a high level of internationality, at the other assembly venues too, which in past years have led the event to a different member country. In 2017, the Assembly is set to be held in Kyoto, Japan, in 2018 in Cape Town, South Africa and in 2019 in Buenos Aires, Argentina.

William H. Ayers, Mississippi Lime, Vice-President of National Lime Association (NLA), USA, opened the talks with an overview of "The lime industry in USA". There are currently 77 active lime plants in the USA. 15 lime producers are united as members in the NLA. Current regulatory challenges include the US EPA Risk and Technology Review (RTR), US EPA clean power plant, wastewater transition from lime use and RCRA alkalinity corrosivity reclassification. The main lime consumer in the USA in 2014 was the metallurgical industry, accounting for 37%, while only 9% of lime products went into the construction industry. Emerging lime markets are acid mine drainage pH control, coal combustion residuals (CCR) regulations, sustainable building materials and animal feed production.



Martin Haworth, Singleton Birch, UK, spoke on “Anaerobic digestion as a renewable power source for the global lime industry”. Singleton Birch is a large energy user, consuming gas for £ 6 million and electricity for £ 2.5 million annually. The company operates with four PFR lime kilns, two hydrators and multiple mills/crushers. In 2013, it built an anaerobic digester and in 2014 Birch Energy was established. The Melton Ross AD facility was built by Birch Energy in two phases (1.25 MW then upgraded to 2 MW) and is now being operated by the company. The power generated is supplied direct to Singleton Birch lime operations. The technology supplier was PlanET Biogas. The Melton Ross lime works’ AD facility generates 16000 GWhrs of electricity per annum and meets 70% of the electricity needs of the limeworks. 45 000 t raw material are used annually: manure, maize, bioethanol by-product and so on. This technology could be used to power lime works in many parts of the world. The preconditions for this are a large industrial site with area for construction, high electricity demand, high energy prices, local feedstock, agricultural area for fertilizer outlet.

Hunter Prillaman, National Lime Association, USA, gave an “Update on U.S. chemical regulation and impact on the lime industry”. He reported on the Globally Harmonized System of hazard communication (GHS), which comprises several classification systems, such as transportation, workplace safety and others. Labels are becoming more and more detailed and exacting, like, for instance, the silica rules. It remains to be seen how things will develop under a new U.S. government.

The “U.S. and global lime statistics from the USGS National Minerals Information Center” were presented by Lisa A. Corathers, US Geological Survey, USA. She presented a list with almost 50 countries and their production of quicklime and hydrated lime, including dead-burned dolomite, in the years 2010 to 2014 in thousand metric tonnes. China is easily the biggest producer (2014: 230 000), followed by the United States (19 500) and India (16 000).

The last talk in the first session was held by Eugene van Aswegen, South African Lime Association, South Africa, on “Acid mine drainage in South Africa – a lime success story”. He profiled Witwatersrand Gold Fields and reported on the use of lime. In the Central and Eastern Basins, for instance, 2300 tonnes unslaked lime are used per month in each case – a good sales market for the lime industry.

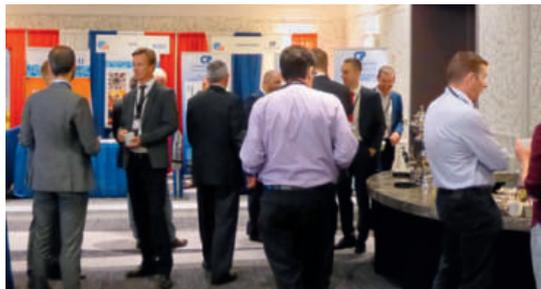
Developments concerning CO₂ regulations

In the second session, “Developments on CO₂ regulations after the Paris agreement” were featured in the programme. There was an update from different ILA regions/countries: EU, Ukraine, USA, Canada, Malaysia and South Africa. It became clear that there are substantial differences in the requirements and their implementation.



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1 In 20 talks, updates were given on the current situation in the industry and its prospects for the future



2 The welcome reception provided a first opportunity to find out about the products and services shown by the exhibiting suppliers



3 The evening at the National Press Club was used for exchanging experience

Innovative solutions for lime operations

In the afternoon, eight speakers discussed “Innovative solutions for lime operations”. Prof. Eckehard Specht, Otto von Guericke University, Magdeburg, Germany, explained “Simulation of lime burning in rotary and shaft kilns”. In this research, the influence of various raw material particle sizes, different fuels and kiln sizes, etc. was investigated.

Stepping in for Frank Ohnemüller, Udo Kremer, Research Institute for Lime and Mortar, Germany, gave an update on the “ECO₂ research project: CO₂ capture with lime products”. Other topics from the supplier branch were a handy limestone charging system, mine reconnaissance by camera, polymer packaging for powdery products, truck dispatch automation and others.

The day was rounded off with a very successful evening at the legendary National Press Club in Washington. Here the delegates had ample opportunity to exchange views and talk shop.



4 Interested delegates visited the Blue Plains advanced wastewater treatment plant near Washington

Plant visit

On Friday, an excursion split into three groups was arranged. Interested delegates visited the Blue Plains advanced wastewater treatment plant near Washington. This claims to be the largest of its kind in the world, with 384 million gallons treated per day (approx. 1454 million l/d). During a technically oriented tour, the visitors found out everything worth knowing about wastewater treatment and the use of lime in this process. The in-house laboratory conducts more than 100 000 tests per year.

Attention was also given to the history in which this region is steeped. The beautifully preserved historic district on the Potomac River, Old

Town Alexandria, is the heart of the city George Washington called home. Mount Vernon is an enduring reminder of the life and legacy of George Washington. The plantation dating back to the 18th century is a landmark in the United States and one of the most visited historic sites. In a well-guided tour, the attendees learned many details about the life of the first American president and visited his grave. With this eventful day, the General Assembly of the International Lime Association (ILA) in Washington DC came to an end.

In October 2017, ILA members will meet again, this time in Kyoto, Japan.
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5 The visit to Mount Vernon gave many insights into the life of George Washington