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Fuels Workshop: Prospects for the European secondary fuels market

MVW Lechtenberg & Partner held a workshop in Duisburg, Germany on 18 October 2012 to look at the future prospects of the German secondary fuels market with reference to the cement industry. Here Dirk Lechtenberg summarises the outcomes of the workshop.

The German cement industry has one of the highest substitution rates for the use of secondary fuels. Some 61% of the thermal energy demand is satisfied by mostly waste-derived secondary fuels.

However, high substitution rates were not the only reason why there was a huge interest in the recent German secondary fuels workshop held by MVW Lechtenberg & Partner. Key representatives of all cement groups operating in Germany and those from medium-sized cement plants and leading waste-to-energy companies took active part in a lively discussion about current market developments.

The explanations about the realisation of the Industrial Emission Directive in German law of Prof. Dr. habil. Uwe Lahl, former Ministerial Director of the Federal Environment Ministry, were of particular interest to workshop participants.

Coming straight from a meeting at the Environment Committee, Prof. Dr. Lahl supplied the audience with first-hand information about the new regulations. Lowering the NO_x limit values to 200mg/Nm³ air and other emission control regulations will strain the cement industry in the coming years with investments of approximately Euro200m required.

It is however now open to debate whether the best available technology (BAT) for NO_x reduction, which is stated in the BREF Documents as Selective Catalytic Reduction (SCR) can generally be put into practice. To date there are only two pilot installations in Germany which, according to the participants' opinion, do not represent the current BAT. Their judgement is based on the fact that, firstly, the installations were subsidised and that secondly they do not meet the expectations regarding operating costs and downtimes.

There were different opinions about the future of the co-combustion of secondary fuels in the cement industry, but everyone agreed that the current development will lead to an unbearable financial burden, especially for medium-sized cement plants.

Dr. Anno Oexle, Partner of the law firm Köhler & Klett in Cologne, explained the practical implementation of the European Decree 1013/2006 that regulates the trans-frontier shipment of waste. His very graphic and practice-oriented talk showed the shipment procedure in detail and left no questions unanswered.

The trade of secondary fuels has evolved to a commodity market all over Europe. This development was further illustrated by Dirk Lechtenberg who presented the latest European facts and figures. All in all, there are notifications for transfrontier shipments of

Below: Delegates listen to a presentation by Dirk Lechtenberg of MVW Lechtenberg & Partner.



secondary fuels within Europe in the amount of around 2Mt/yr.

Europe's largest exporter of secondary fuels is the UK, where domestic combustion capacities for secondary fuels are currently limited. Therefore, the export of around 0.82Mt of secondary fuels was authorised in 2011 as shown in Table 1.

Recently, a new trend has been emerging in Poland. It used to be an import country for secondary fuels used in the local cement industry which burned around 1Mt of secondary fuels in 2011.

Importer	Amount (t)
Denmark	10,000
Estonia	15,000
Germany	25,000
Latvia	75,000
Portugal	15,000
Sweden	36,000
Netherlands	642,000
Total	818,000

Exporter	Amount (t)
Denmark	20,050
United Kingdom	2344
Ireland	25
Netherlands	66,440
Norway	440,747
Total	529,606

In addition, around 100,000t of alternative fuels were exported in the same year.

Elsewhere, Cemex Cement in Latvia was

In 2013, however, new legislation will come into force introducing a landfill ban for wastes with a calorific value of more than 6MJ/kg and a total organic content of more than 5%. Consequently, secondary fuels have now been *exported* from Poland for the first time to German waste-to-energy facilities situated near the Polish-German border.

A European influence can also be noticed in Ireland. Approximately 140,000t of alternative fuels were used by the Irish cement industry in 2011 by Lagan Cement

and authorised to import approximately 101,000t in 2011/2012 and Sweden imported more than 529,000t of alternative fuels from biomass and waste from various countries in the year 2009 as shown in Table 2.

All in all, it is noticeable that, within Europe, secondary fuels are treated like a commodity under strict regulatory conditions. However, they are still regulated by the individual European member states.

The following presentation by Dr. Christoph Schmid of MVW Lechtenberg, described the procedure of taking samples of secondary fuels, especially in cases where the fuels are transported by vessel.

The sampling procedure can be tricky, even when BAT and latest sampling methods are used. This was clearly illustrated during the last presentation by Tomasz Czop, also of MVW Lechtenberg. He showed that vessel transport of light alternative fuels, either in bulk form or in bales, calls for a lot of experience in this field as well as proper equipment and corresponding knowledge regarding the notification and authorisation application process.

The workshop day ended with a pleasant dinner with a superb view over the Duisburg port where the participants shared their personal experiences of using and trading secondary fuels and had lively discussions.



Left: There was plenty of opportunity for discussion during the workshop.

Left - Table 1: Breakdown of secondary fuel exports from the UK to other European countries in 2011.

Left - Table 2: Breakdown of secondary fuel imports into Sweden from other European countries in 2009.

Below left: Discussions continue during a coffee break.

Below: Dinner was held with views over Duisburg port.

