

**WEACAU-III: International Workshop on  
Environmental Aspects of Coal Ash Utilization**

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**Producers and Users perspective on CCP regulations in light of  
marketing requirements and the necessary means for beneficial and  
durable utilization – EC case**

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**Abstract**

In some European countries, ashes are used for more than 50 years in e.g. cement and concrete. Several environmental and technical benefits with the use of ashes were observed based on trials. The use has developed by the years and meanwhile the utilisation of CCPs is well established in the European countries. Due to large volumes and constant properties e.g. more than 70 % of the siliceous fly ash is used in cement and concrete and requested by the market on a regular term.

CCPs are used as a replacement of natural resources by the construction industry. Their utilisation helps to save natural resources and to reduce the energy demand and greenhouse gas emissions to the atmosphere caused by mining and generation of products which are replaced by CCPs. By this, the use of CCPs also contributes to sustainability. The share of CCPs has to be considered in the product or mix design on a regular availability and quality as defined in products standard in case of ashes or with the quality criteria in case of FGD gypsum. Partial unavailability can be covered by logistics, but long term unavailability will lead to market loss and higher disposal. Unavailability is on one hand caused by maintenance of power plants but today also forced by political decisions which led not only to the installations of de-NO<sub>x</sub> and de-SO<sub>x</sub> system. The decision to reduce CO<sub>2</sub> emissions led to increased use of biomass and production by renewable systems (wind-, solar-, hydropower) and force coal-fired power plants to be operated also for peak load and reserve. New coal-fired power plants have to consider carbon capture storage (CCS) technologies which are still under development. Especially the increased production by renewables results in more efforts regarding CCP quality. Transport requirements will have an impact on the regional supply.

The utilisation is becoming more and more restricted by legislative aspects. The legal definition of CCPs as waste causes hurdles, which are unnecessarily impeding the utilisation markets. In the revised Waste Directive “by-products” and “end-of-waste” is defined. The producers consider their materials produced according product standards by-products and have consequently registered them according to the REACH Regulation. End-of-waste is subject of a recovery operation and also requires the product registration. In the product standards environmental parameters will be incorporated into the CE marking of products. This is based on the new Construction Products Regulations aiming in uniform assessment methods of the performance of construction products. The industry is preparing for dossier preparation to allow the CEN technical committees to evaluate the parameters and schemes to be considered in the CE marking of the specific products. The producers of CCPs will continue to provide always good quality products to the construction market.