

Introduction

This issue discusses international trends in coal-fired power generation and the challenges these installations face in meeting environmental criteria. Based on these developments there is no doubt that the rapid growth of renewable energy is forcing the fossil fuel industry to adapt their technology to become more environmentally friendly. The increased use of coal fly ash can play a pivotal role in reducing the negativity around the use of coal for power generation.

Kind regards

Richard Kruger

WELCOME - WELCOME - WELCOME

The South African Coal Ash Association (SACAA) would like to welcome Deon Rossouw from Bekwa Construction Company and Sappi Southern Africa Limited as new members. May you find your membership valuable and enjoy the many networking opportunities.



❖ **Coal consumption declines to lowest level since 1984**

Power generation accounts for over 93% of coal consumed in the United States. According to the US Energy Information Administration the US electric power sector consumed 677 million short tons of coal in 2016, down 35% from its peak in 2008 and the lowest level since 1984.

❖ **GE's new facility aims at cleaner coal plants**

GE officially launched its Powering Efficiency Centre of Excellence (COE) to help the global coal power industry to reduce emissions.

GE recognises that, despite the global transition towards renewable energy, coal is not going to disappear for decades to come. In facing this reality they are looking to make new and existing plants more efficient and cleaner. Currently, 41% of the world's electricity is produced from coal. Each country faces challenges in balancing the role of coal power with renewable technologies.

❖ **Go ahead for Makhado coal mine**

COAL of Africa (CoAL) has confirmed that, after receiving the Integrated Water Use Licence, all outstanding regulatory issues have now been cleared for its \$280m Makhado coal mine in Limpopo.

❖ **Mine backfill and rehabilitation**

With the change in legislation (Ash Flashes no24) we enter a new era. The time is now right for the development of new and novel applications for coal ash. Mine backfill and rehabilitation is one of the more promising options available. While there is information available locally it would be prudent for anyone wanting to familiarise themselves with the topic to peruse the website of the American Society of Mining and Reclamation (ASMR).

<http://www.asmr.us/>

ASMR was founded in 1973 as a small West Virginia advisory council concerned with reclamation of lands that had been disturbed by coal extraction. ASMR has evolved into a professional society of international prominence. Initially their activities focussed on lands disturbed by coal mining but have subsequently been broadened to include all aspects of land reclamation as well as the protection and enhancement of soil and water resources regardless of the source of the disturbance.

Their mission is to represent and serve a diverse national and international community of scientists, practitioners, private industry, technicians, educators, planners, and government regulators involved in mineral extraction and the reclamation of disturbed lands. ASMR promotes the advancement of basic and applied reclamation science through research and technology through the Society's annual meetings, workshops, published proceedings, newsletters, their Reclamation Matters magazine, and the ASMR website.

The 35th Annual Meeting and Conference of the American Society of Mining & Reclamation Land Reclamation is scheduled for 2-7 June 2018 **to be held at the Airport Renaissance Hotel, St. Louis, Missouri.**

❖ **New regulations could see one third of EU coal plants close**

A report by the Institute for Energy Economics and Financial Analysis (IEEFA) has forecast that one third of the European Union's coal-fired power stations could close by 2021. EU thermal plants will face the prospect of closure if they are unable to finance the costly upgrades required to meet new emission limits for sulphur and nitrogen oxide.

To comply with the new rules by 2021, utilities will have to invest in new technology, retrofit coal plants, restrict operating hours to 1 500 a year or close the facilities, the IEEFA said.

According to the report ***“Europe's Coal-Fired Power Plants: Rough Times Ahead: Analysis of the Impact of a New Round of Pollution Controls”*** these regulations will have a detrimental effect on the fragile economics of coal power generation across the EU.

The IEEFA analysed around 600 installations in Europe which burn coal, lignite and biomass. They found that 108 of these, totalling 56 GW of electrical capacity and a third of EU coal-fired generation capacity, are responsible for the most SO_x and NO_x emissions.