

SPOTLIGHT

on the total utilization of coal resources

by M.P. MOHRING*

A School on the Total Utilization of Coal Resources, which was organized by the Technical Programme Committee of The South African Institute of Mining and Metallurgy in conjunction with the South African Coal Processing Society, was held in the Civic Theatre at Witbank from 30th October to 2nd November, 1989. Altogether, 49 papers were presented over the four days, covering a wide range of topics related to the better utilization of the coal reserves in South Africa. The topics covered included the increased extraction of coal resources by both underground and surface mining, increasing yields in coal-preparation plants, use of colliery and power-station waste, and protection of the environment during these processes.

The School was officially opened by the President of the SAIMM, Dr Oscar Steffen.

Technical Proceedings

The technical session on the first day dealt with three main topics

- An analysis of surface-mining methods and innovations that can improve the viability of open-pit mining
- Factors influencing the viability of longwall mining
- Methods of increasing the extraction from bord-and-pillar mining.

The second day's proceedings followed the theme of high-extraction mining methods, and their application and economics. The main areas covered were pillar extraction by various methods, including

- Rib-pillar extraction
- Surface methods
- Scraper mining
- Ploughing
- Augering.

The papers presented in this session illustrated the many unique methods employed to increase the extraction of coal reserves.

After tea, the emphasis switched to papers relating to the optimization of efficiencies in coal-preparation plants.

The third day concentrated on ways of increasing the yields in coal-preparation plants. The papers in this session concentrated on methods of increasing plant efficiencies, the safe storage and usage of plant discards, and the utilization of coal ash.

The last day's presentations raised issues relating to the rationalization of the output from mine preparation plants, the utilization of low-grade coals, and other uses for coal. This was followed by four papers that outlined the potential conflict between the maximum extraction of coal and the effect on the owners of the surface rights. A good account was given of the achievements in the rehabilitation of mined-out areas. This set the scene for the final debate—based on two papers delivered by Drs Van Niekerk and Hugo. The former outlined the agricultural point of view on full extraction, including an overview of the work being conducted by the Kraai van Niekerk Commission, and the latter concluded by airing the viewpoint of the Department of Mineral and Energy Affairs on the subject.

Conclusion

Social interaction between delegates was achieved through the many debates over lunch and at two cocktail parties, which were generously sponsored by Joy Manufacturing and by Voest Alpine.

The Institute thanks the Colloquium Chairman, Mr Roy McGillivray, and his Committee for the hard work they put into organizing the event; the Secretarial staff, particularly Miss Pam Binstead for her untiring efforts; the sponsors of the lunches and cocktail parties; and the exhibitors for their support.

* Rand Mines, The Corner House, 63 Fox Street, Johannesburg, 2001.