

The Research, Developments and History of Mine Fire - Detection, Prevention and Control

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Abstract

Fires in coal mines are known to exist since the inception of Indian coal mines and have a historical record of extensive fire activity for over one hundred forty years old i.e. first coal mine fire was reported in the year 1865 at Ranigang Coal Field in India (Dhar, 1996). The major coal fires of India are located in Jharia, Raniganj, Singrauli and Singareni coalfields and about 160 mine fires had been detected in 1997. Out of these, more than 70 were reported from Jharia Coalfield itself and total area affected extends over 6300 ha which threaten the township of Jharia (DLR 2005). The fires in Jharia and Raniganj Coalfield are mainly due to unprofessional mining and extraction of coal in the past. The paper highlights history, techniques used for detection, prevention and control of mine fire in Indian context.