Journal of Rock Mechanics & Tunnelling Technology (JRMTT)
21 (2) 2015 pp 115-129

Available online at www.isrmtt.com

Extraction of Locked-Up Coal in Standing Pillars in Indian Underground Coal Mines

A. Kushwaha, R. Bhattacharjee, S. Tewari, A. Sinha*

CSIR-Central Institute of Mining and Fuel Research, Dhanbad, India

**Email: angadkushwaha@yahoo.com*

ABSTRACT

Ensuring energy security for the growing population with rising per-capita energy demand has emerged as one of the greatest challenges before India. The developing nation like India will continue to rely heavily on thermal power plants for meeting energy demands against restricted access to nuclear technology and mixed success of non-conventional energy sources. Since inception of mining industry till now, bord and pillar (room and pillar) method of mining is still the predominant method of working in India. In most cases only the development workings have been done due to various complex mining conditions. As a result, huge amount of coal reserves are locked as standing on pillar (SOP) in these mines. Therefore, the adoption of effective mining technologies for the fast liquidation of these standing pillars is the need of the time to meet energy demands of India up to some extent. This paper presents a brief review and successes of different mass production technologies like continuous miner technology, shortwall mining and blasting gallery method of mining adopted for fast liquidation of SOP reserves in some of the Indian coal mines.

Keywords: Mass production technology; SOP; Continuous miner; Shortwall; Blasting gallery