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Izvajanje preventivnih ukrepov za varovanje pred stebrnimi udari v jamah Premogovnika Velenje

Rock burst prevention measures in Coal Mine Velenje

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POVZETEK

V Premogovniku Velenje se s stebrnimi udari srečujemo že vrsto let. Gre za dinamičen pojav, ko se v trenutku sprosti velika količina akumulirane energije v hribini. Posledice lahko zaznamo na površini kot tresenje tal, v jami pa kot nenadno zatisnitev jamskih prostorov, prekinitev zračenja in poškodbe zaposlenih zaradi udarcev. Vzrok za nastanek stebrnega udara je povečana napetost, ki se zgodi ob prerazporeditvi pritiskov v okolici jamskih objektov. Preventivni ukrepi so rezultat sistematičnega dela pri spremljanju stebrnih udarov v preteklosti in obsegajo ukrepe za indikacijo povečanih napetosti in kontrolirano razbremenjevanje.

Ključne besede: stebrni udar, seizmičnost, premogovnik, preventivni ukrepi.

ABSTRACT

The history of rock bursts in Coal Mine Velenje has a long tradition. Rock burst is defined as a dynamic phenomena where large amount of energy is released from surrounding rock affecting both surface and mine infrastructure. Rock bursts can be felt on the surface as ground vibrations while in the mine they result as sudden closure of roadways, interruption of mine ventilation and injuries of miners due to bumps. The reason for emergence of rock bursts is increased stress around mine roadways. Preventive measures are a result of systematic monitoring in the past and contain both measures for stress indication and controlled stress release.

Key words: rock burst, seismicity, coal mine, preventive measures.