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RETROSPECTIVE ENVIRONMENTAL ASSESSMENT OF BLAST VIBRATION IMPACT IN UNDERGROUND MINING

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The blast vibration impact on the ground surface objects is usually expected to be smaller in underground mining, comparing with surface mining due to less charges. In the case of shallow mines blast vibration velocity may exceed permissible values when mining faces move closely under surface constructions. Long period of mining, 40-50 years, is accompanied by variation in mining and blasting methods, geological conditions and also safety regulations. At mine closing, it is, among the other technological factors, also necessary to assess the blast vibration impact on the environment. As an example of after-effect study, the recently closed Ahtme mining field in Estonia oil shale deposit was used.