low production costs, high productivity and safety of mining operations.

Further investigation implies studying the criteria for milling combines effective operation at iron ore pits, improving the rational variant of their application and rock mining technology.

## References

- 1. Vusyk, O.O. (2016). Analiz teoretychnykh osnov zastosuvannia mekhanichnoho sposobu rozpushennia hirskykh porid, kotryi pidvyshchuie efektyvneist rozrobky zalizorudnykh rodovyshch [Analysis of the theoretical basis of application of mechanical means of rock crushing, which increases the efficiency of iron ore pits mining] Innovative development of mining industry: international scientifictechnical internet-conference. Kryvyi Rih [In Ukrainian].
- 2. Anistratov, Y.I. (2007) *Tekhnologicheskie protsessy otkrytykh gornykh rabot* [Technological processes of surface mining]. Moscow: LTD «NTC « Mining » [In Russian].

Oleksandr Habdrakhmanov, student T.V. Kurbatova, language adviser SIHE "Kryvyi Rih National University"

## PECULIARITIES OF HORIZONTAL MINE WORKING DRIVING

Horizontal mine workings are driven in several stages: horizontal cross-section designing, choice and calculation of blast-hole drilling parameters, ventilation designing and operation planning for mineworking driving.

The dimensions of a mine working cross section are determined by the dimensions of vehicles, safety clearance sizes taking into account possible rock displacement and the air current speed. We should also consider the possibility of mine working outline displacement.

The method of drilling blast-holes and the selection of the appropriate drilling equipment is determined by the physical and mechanical properties of the rock massif and the designed schedule of the operation. Portable drills are mainly used for this purpose.

While choosing the type of explosives and initiating means we

should be guided by the requirements of safety, available explosive materials that are recommended as well as by the information concerning deposit inundation.

In conducting horizontal mine workings we apply electrical and fire and electrical blasting methods. The most common blasting method is electrical, while in case of heavily watered faces it has a universal application.

Single dead-end mine workings are ventilated by local ventilation fans. The most common is a pressuring ventilation scheme. In case of this scheme application, the equipment is installed at a distance of no more than 10m from the original jet. The distance from the ventilation pipe end to the face does not exceed 10m.

The air volume necessary for the dead-end ventilation is determined according to the amount of explosives and the number of people simultaneously working underground.

A high-level mine working operation is an effective way of achieving high technical and economic results in mining. The operation modes meet the requirements of other mining service modes at an enterprise. There are three or four shift modes respectively, with 5 and 6 working days a week. In a three-shift mode (5-6 hours), some repair and preparation shifts are organized including three-hour breaks. In a four-shift mode, the repair and maintenance operations are performed during days-off.

## Artem Hetun

R.O. Timchenko, PhD, prof., research supervisor D.A. Krishko, PhD, senior teacher, research supervisor N.O. Holiver, PhD, assoc. prof., language adviser SIHE "Kryvyi Rih National University"

## PARKING IN CRAMPED URBAN CONDITIONS

Because of the advanced growth rate of car ownership over public vehicles lack of parking has become a problem, not only in the center but also in residential. Parking space deficiency leads to the search for new solutions that have investment attractiveness and are aimed at increasing the efficiency of car parking.