## RISING A LEVEL OF SAFETY WORK OF MINERS – THE MAIN DIRECTION OF ACTIVITY OF THE PUBLICLY HELD COMPANY "KRASNY METALLIST"

A. Kotlyarov N. atvienko E. Kartselin R. Istalianov

PHC "Krasny Metallist" Ukraine University of Mining and Geology "St Ivan Rilski" Sofia 1700, Bulgaria E-mail: rgi@mgu.bg

The Publicly Held Company "Krasny Metallist" is the only enterprise in Ukraine specializing in the production of:

- systems and devices of control of methane content in mine atmosphere;
- systems and means of early detection and suppression of methane and coal-dust explosions;
- carbon monoxide gas analyzers;
- mine stationary plants and transport automations systems (main water drainage, ventilation and airheater plants, mine-rail transport);
- systems of automation, travel control and protection of hoisting plant moving vessel;
- signalling and communication systems, including transmission of information through a rope from the moving vessel on the hoisting plants;
- actuating mechanisms, starting and adjusting equipment, breast and column drills.

Lately the PHC "Krasny Metallist" has been paying great attention to the development and putting into production the devices, means and systems ensuring rising of level of safety work of miners. Thus during the last three years more than ten kinds of new products have been developed and put into production. These are:

- methane alarm combined with a caplamp(CMΓ.1);
- portable methane analyzer "Сигнал.5", which ensures methane volume part concentration measurement from 0 to 100%, with simultaneous remembering the extreme values of methane concentrations for the period of continuous operation(function of "black box"):

- explosion-proof mine lighting device of increased safety with extended functional abilities(CMF.1.01);
- modernized automated explosion localization system (СЛВА);
- blind working ventilation equipment (AKTB);
- mine atmosphere dust content meter(ИЗША);
- piezoelectric audible signalling devices(C3B.1 and C3B.2), etc.

At present time the enterprise is conducting production tests of complex of means for alarming about the accident in mine by a signal from the surface and sending a radiobeacon signal during search of victims, remaining under the fallen rock. The complex consists of:

- accident alarm generator(apparatus "Вызов");
- apparatus "Зонд" intended for remote detection, radio search of the miner, remaining under the fallen rock:
- signaling device(CMF.3) intended for alarming the miner, remaining under the fallen rock by a signal from the surface and sending a radiobeacon signal during his search. The CMF.3 signaling device is combined with a caplamp.

The complex of such means will be put into serial production in the third guarter of 2003.

The PHC "Krasny Metallist" is performing a great deal of work on ensuring high quality and safety of its production. One of the main directions of such works is conducting of product tests on a high technical level. Tests are being conducted at the company's testing center, which is accredited to technical competence in Certification system UkrSEPRO.

Recommended for publication by Department of Electrical Engineering, Faculty of Mining Electromechanics