

**Abstract of the Article**  
**"Possible Boundaries of the Reservation in the Coal Mines  
Development Models"**  
**by Yu. Rozhko**

The features of the modeling coal mines development in the current conditions of the variable demand for coal product are discussed.

The questions of the cost price calculation questions in the places of expenditure are considered. In this respect postulate is formulated: increase in the cost price extraction of the coal due to the decrease of goods traffic can not be greater than the parts of the cost which corresponds to the replacement or refined elements of the production. The need to access the structure of the production cost for the six processes of coal extraction (cleaning and preparation work, underground transport, repair of the excavation), and other underground processes (lifting, pumping, ventilation, repair of equipment, electricity, mining surface and etc.) flows directly from this assumption.

The problem of defining the possible boundaries of the reservation in the process of coal mines development is being paid attention to. Following the logics of reservation that is increasing of the flexibility in loads planning on the production units of the mine means that in the model must be necessarily present the conditions of the restrictions on the possibilities of purification equipment (including spare parts), and by the limits on the production resources (including natural) of the enterprise. Two-step formulation of the task of modeling of the loads on the main chains of the mine in view of ensuring flexibility to the management of productive resources is proposed.

The proposed method allows visually trace the dependence between the degree of utilization of production resources and production efficiency.