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Assessing the Ways of Improving the Power Saving Modes in the Ore-Grinding Technological Process

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Abstract : Monitoring the distribution of electric power consumption in the technological process of ore grinding is conducted. As a result, the impacts of the mill filling rate, the productivity of the ore supply, the volumetric density of the grinding balls, the specific density of the ground ore, and the relative speed of the mill rotation on the specific consumption of electric power have been studied. The power and technological factors affecting the reactive power generated by the synchronous motors, operating within the technological scheme are studied. A block diagram for evaluating the power consumption modes of the technological process is presented, which includes the analysis of the technological scheme, the determination of the place and volumetric density of the ore-grinding mill, the evaluation of the technological and power factors affecting the energy saving process, as well as the assessment of the electric power standards.

Keywords : electric power standard, factor, ore grinding, power consumption, reactive power, technological
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