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## **WORKERS EXPOSURE TO NOISE IN SURFACE EXTRACTIVE INDUSTRY**

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### **Abstract**

Discomfort caused by noise is ever-present, having numerous physiological, psychological and social implications. One of the most important discomfort factors for personnel working in the processes of surface coal extraction is represented by noise. This paper examines how noise generated by the process of lignite extraction influences the working capacity of employees. The covering effect of voice or different sound and verbal signals, during work, leads to tiring efforts of attention, thus decreasing work efficiency. Because of microclimate conditions in lignite exploitation activity (heat, humidity, air flow, etc.) the effects of occupational noxae are felt more emphatically by personnel exposed to them. This fact fosters a decrease in working capacity by emergence of induced stress, a decrease in concentrated attention, coordination of professional technical movements and the ability of critical apprehension as a result of occupational stress. The current paper analyzes how the upgrade and refurbishment of bucket wheel excavators contributes to lowering exposure to noise. Refurbishment by replacing the control booths of bucket wheel excavators results in lowering occupational noise exposure by up to 10dB (A) for workers in lignite extractive industry.

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