

МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
МЕДИЧНИЙ ІНСТИТУТ



АКТУАЛЬНІ ПИТАННЯ
ТЕОРЕТИЧНОЇ ТА КЛІНІЧНОЇ МЕДИЦИНИ
Topical Issues of Theoretical and Clinical Medicine

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such professions as steel smelter, steelmaker of the blast furnace and electrician for repair and maintenance of electrical equipment – 3,0, 1,7 and 1,6 respectively, for the operator of the collapse machine I_r was 0,9, also there was calculated the index for the refractoryman and for the machinist of the crane of metallurgical production – 0,6 and 0,5 respectively. In the agglomeration shop among the professions which had the largest I_r are the heater – 3,5, the bunkerer – 2,8, the foreman – 2,2, the electrician for repair and maintenance of electrical equipment – 1,7, the gas welder – 1,0 and the man engaged in agglomeration – 0,9. In the other shops the index of the professional risk was lower than 1, except the control panel operator – 1,01 (crimping shop), the man, who controls the condition of the hot rolling steel – 1,73 (hot rolling shop) and the gas welder – 1,07 (metallurgical furnace repair shop).

HYGIENIC EVALUATION OF MACHINE SHOP WORKERS

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Research objectives: To conduct hygienic evaluation of working conditions of the machine shop industry workers on the leading enterprises.

Methods and applications: There were analyzed 123 reports, including 38 reports of air research of a working area, 55 reports of meteorological factors research, 30 research protocols of the noise load.

Main results: The analysis of indicators of microclimate found that in the warm period, the average of a temperature was $18,07 \pm 2,050C$, humidity - $46,06 \pm 3,39\%$, air velocity - $0,4 \pm 0,04$ m/s. In the cold season temperature averaged to $12,69 \pm 0,570C$, relative humidity and air velocity - $37,13 \pm 2,2\%$ and $0,55 \pm 0,29$ m/s. Evaluation of a noise in the workplace of a turner – the noise in level of $84,24 \pm 1,02$ dB, so conditions can be classified as third class with first hazard degree. According to evaluation of the working area air it was found that there are chemicals in the air, but they do not exceed the maximum permissible concentration, so due to the presence of substances with unidirectional action (carbon monoxide, sulfur dioxide) working conditions was referred to third class with first hazard degree. The content of silica dust in the air of the working area doesn't exceed the MCL and averaged $3,98 \pm 0,4$ mg/m³. According to the evaluation of severity and intensity of a turner work, it was found that the working process include lifting and transporting loads up to 8 kg, static load is 345 kg*s with one hand, two hands - 10890 kg*s, is in an inclined position to 300 - 28.7% of the working shift and more than 300 - 17.3% working shift, precision work with high level of visual concentration with duration to 17.1% of working shift, 42% of the working shift include the monitoring of the production process without action, so, because of the evaluation of the work intensity, the working condition can be classified as third class with first hazard degree.

Thus, conditions of turner workplace according to Hygiene classification GN 3.3.5-8-6.6.1-083-2001 p. is a condition of third class with first hazard degree.

INDICATORS OF PHYSICAL DEVELOPMENT OF CHILDREN IN CONDITIONS OF ATMOSPHERIC POLLUTION OF METALLURGICAL CITIES

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Topicality. In modern industrial cities the formation of children's health is influenced by a set of conditions; and air pollution takes a leading place here.

Aim and objectives. Hygienic evaluation of indicators of physical development of children living in conditions of anthropogenic pollution of atmospheric air of modern industrial cities (on the example of Zaporizhzhia).

Materials and methods. To study physical development of children, medical examination of school-age children of the 1st and 2nd health groups in 3 regions of Zaporizhzhia has been conducted: