

Assessment of Working Conditions in a Modern Russian Milk Processing Plant from the Aspect of Occupational Medicine

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Aim. Assessment of harmful industrial factors caused by work conditions in a modern milk processing plant.

Methods. Work conditions, rest, nutrition, medical service, and subjective health indices among the employees in a new milk processing plant were studied. We used a specially formed questionnaire; instrumental measurements of microclimate parameters, noise, and illumination at workplace; laboratory physical and chemical evaluation of air pollution with aerosols and gases in the plant premises; chronometric studies determining the workers' activity during the working day location, and physical and psychological body exertion at the time of industrial activities; and assessment of design and operating documents of the plant. Laboratory studies included 157 workers, 1,724 tests, 26 chronometric studies, and analysis of 11 plant's documents.

Results. Unfavorable microclimatic conditions, noise, inadequate illumination, air pollution with dust and toxic substances, physical workload, increased demand for concentration, and monotony of labor in mass production professions were found. A great proportion of workers was dissatisfied with their working conditions and many suffered from occupational diseases and work-related diseases.

Conclusion. The conditions of work in the studied milk processing plant may be classified as harmful and dangerous. The flaws in technological process, omissions in design and construction of the plant, as well as its improper exploitation aggravated industrial harmful factors. In combination with unsatisfactory organization of rest, nutrition, and medical services in the plant these factors may affect the workers' health and cause general and occupational diseases.

Key words: employee health; milk; noise, occupational; nutrition assessment; occupational diseases; Russia; social conditions; workplace