

New Occupational Noise Valuation Method

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Introduction. Since Latvia joined the European Union in 2004, it has created the legislative act in the field of estimation the occupational risk factor caused by noise in accordance with the International requirements. This new legislative act brought to Latvia the dissonant opinion in understanding of occupational noise influence to human hearing in comparison with the old-style thinking prevailing in Latvia in the years before. The daily noise exposure level combined with the peak sound pressure appeared instead of normalized A-weighted spectra for each category of workers. The noise indicators in the Cabinet Regulations of Latvia “Occupational safety requirements regarding the exposure of workers to the risk arising from labour environment noise” are similarly as in the Directive 2003/10/EC of the European Parliament and of the Council on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents. Nevertheless, practice shows that noise valuation guidance given in Regulations is not very suitable for obtaining straight results and in some cases comes in conflict with the standard measuring methods described in ISO 9612.

The aim, materials and methods. We undertook the aim to work out the new procedure of occupational noise indicator measurement and valuation. International standards have been used and corroboration by the Latvian Technical Committee of Standardization “Acoustics, mechanical vibration and shock” has been observed.

Results. The new procedure of occupational noise valuation relates to the stationary, semi-stationary and mobile work places. In the stationary workplace the location of an employee is fixed, excluding the time-outs. In the semi-stationary workplace the location of an employee varies repeatedly day-by-day covering some definite number of workplaces. In the mobile workplace the location of an employee varies in the room or territory during 8 hours of workday and cannot be characterized by very concrete place or location. The accredited laboratory is the only performer of measurements using the calibrated standard sound level meters and data processing equipment. To avoid any misunderstanding and disaccord among the measurement operators, we propose common terminology. All exposure process is divided in eight clearly distinguished goes, beginning from the formulation of tasks and aims of measurement, and ending by writing of measurement report. New procedure clearly states the locations of measurement microphone taking into account the worker’s activities, timetable of tasks of a concrete person – the work schedule of employee and exposures to noise, calculation of uncertainties and valuation of risks.

Conclusion. The principally new occupational noise valuation method has been worked out, which is devised for easier adaptation of the requirements and strongly follows Latvian Standard LVS ISO 9612.