

A INTEGRAL INDICATOR FOR EVALUATING THE OCCUPATIONAL ENVIRONMENT FACTORS

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One of the difficulties in the modern hygienic work space evaluation is studying the multitude factors of occupational environment. A standard environment does not give rise to any problems, but for a dynamic environment a feasibility study should be carried out, because sometimes in some sections of time a factor may exceed the allowed limit, but it's action is not harmful because other factors of occupational environment are far from this limit.

From a groundless point, the occupational environment is composed of several factors that are a part of more groups of factors and indicators that can be assessed by the different regulatory frameworks. Based on the given rules^{1,2,4} or on each component of the occupational environment from the normative documents for each factor as for example Noise, Lighting, Temperature, Humidity, Vibration, ultrasound, Infrasound, actual temperature, CO₂, CO, and others.

In the hygiene-based literature³ lies the idea of creating the so-called "integral Indicator for evaluating the occupational environment" (IIEAO) that he believes should be determined after a canonical relation of a discriminant type, and constitutes a multiple unidimensional parameter that represents the action of factors that determine the occupational environment.

$$\text{IIEAO} = -30,87 + 0,19 \text{ Noise} + 0,24 \text{ Vibration} + 0,006 \text{ Infrasound} + 0,0065 \text{ C.U.}$$

This indicator characterizes the total action of the harmful factors of the environment. The value of this indicator changes depending on the intensity of the action of these factors, in other words the higher the action of the factors the lower the total value of the indicator for the occupational environment is, but if the negative action decreases and the occupational environment becomes more comfortable for the activity-the value of the following indicator increases and can be classified according to the sanitary regulation in three groups⁵.

Basically, if the indicators of different occupational environment parameters differ a lot, then the multiplicity of results can be analyzed by the deviation method through Sigma which shows an effective average of the given fact. We have tested the working environment of the Chişinău municipal public transport drivers and through 20 complex measurements of all activity environment factors we have concluded that the work in the given branch is in class III-B, according to the rules⁴.

The sample should be widened up to 150 evaluated cars under the statistical control formula. It has also been discovered the need to carry out wider measurements, namely to perform the calculation at smaller intervals throughout the year in all seasons, and at every hour of activity. Another useful thing that has to be performed is the assessment of all the factors of the occupational environment at the same time.

[1] 89/654/CEE

[2] FRR 2.2.2006-05

[3] Kym O., Muller Ch., Kleka U., *Factor, discriminant and cluster analysis* (1989) – 215 page.

[4] 2.2.4.548 -96 RNI

[5] Bobrov A. F., Mironica I. N., *Cardiology*, (1998) – 43 page.