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FEATURES OF THE APPLICATION OF THE MODIFIED MATRIX METHOD FOR ASSESSING PRODUCTION RISKS IN CONSTRUCTION

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Abstract. *Reconstruction of infrastructure after massive destruction are among the top priorities necessary for the normal life restoration. At the same time, considerable attention should be paid to the analysis of the main indicators of industrial injuries. Currently, studies analyse only individual characteristics of the causes and circumstances, which does not allow for a comprehensive assessment of the impact on injuries. For practical use, the modified matrix method for assessing production risk with assessment scales is appropriate and effective. However, this needs scientific justification.*

Restoration and reconstruction of infrastructure after massive destruction are among the top priorities necessary for the restoration of normal life. However, any restoration, reconstruction and new construction work may be accompanied by accidents and even human and material losses if the organization of labour protection is unsatisfactory. The main problem of the accidents occurrence and occupational diseases at infrastructure reconstruction and new construction is the possible involvement of people who have not previously been involved in such work and do not have sufficient experience. Therefore, all possible risks should be taken into account and appropriate effective preventive measures should be provided. At the same time, considerable attention should be paid to the analysis of the main indicators of industrial injuries. It is noted that labour protection management methods based solely on an analysis of the causes and circumstances that led to occupational injuries and occupational diseases make it impossible to prioritize preventive measures, and the current legislation does not sufficiently stimulate employers to apply the latest methods of labour protection management [1, 2].

The problems of practical implementation of modern theoretical developments devoted to the application of a risk-based approach to planning preventive measures require a deep study. Features of the transition to labour protection management based on the assessment of occupational risks should be formulated. At the same time, for practical use, the modified matrix method for assessing production risk with assessment scales is appropriate and effective. Thus, the safe reconstruction and construction of infrastructure after massive destruction depends on the qualitative definition of production risks. This is possible with the use of a modified matrix method for their assessment at the enterprises of the construction industry. At the same time, the application of this method for risk assessment in this industry needs scientific justification.

Used information sources:

1. Bilostots′ka, V. O., & Tairova, T. M. (2014). Pro metody otsinyuvannya ekonomichnykh zbytkiv vid vyrobnychoho travmatyzmu. Problemy okhorony pratsi v Ukrayini, (28), 53–62.

2. Yesypenko, A. S., & Slipachuk, O. A. (2014). Otsinyuvannya rivnya vyrobnychoho travmatyzmu. Problemy okhorony pratsi v Ukrayini, (27), 101–110.