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Risk Assessment in Labor Security for Designing Engineer

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Abstract
The paper presents aspects concerning the assessment of labour security risks that occur during the activity of the designing engineer, who carries on office work and occasionally activity on the construction site. It presents requirements of the Romanian laws, OHSAS 18001 and SA 8000 concerning identification and evaluation of risks specific to job within a company. The risks afferent to this work position are identified according to regulation requirements for each element of the labour system, namely equipment and materials utilized in the labour process, physical, chemical and biological factors present in the work environment, physical and psychical working stress of the employee, wrong actions or omissions made by him. The method of determining the risk level is a mathematical method conceived by the authors, method that starts with risk definition (R) as combination between a risk occurrence probability (P) and that risk probable consequence (C). We decided that this combination should be the mathematical product between P and C so that in an orthogonal graph having as coordinate axes the risk occurrence probability and its consequences, the risk is a hyperbola. Several such accurately mathematically hyperbola drawn-up on the same graph can delimitate different risk levels, thus separating the acceptable risk from the non-acceptable one. This method of separating several risk levels based on Risk Acceptability Curves allows companies to have a sensitive assessment of identified risk and to adopt measures in order to mitigate the risk level according to objective, mathematical criteria.

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