

CHAPTER 29

Risk prioritization methodology for decision makers

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ABSTRACT

Changes in regulatory standards, especially NR-01 with the obligation to prepare a Risk Management Program (RMP) has increased pressure on organizations to manage occupational risks. Companies need to establish mechanisms to protect the health and safety of their employees to meet legal obligations and reduce the damage caused to their employees and society. Organizations need to recognize the risks that make up their activities and establish measures to eliminate or reduce the potential damage that these risks can cause, and the proposed methodology seeks to solve this problem.

Keywords: Risk prioritization, Risk management, Decision making, Occupational hazards.

1 INTRODUCTION

Changes in regulatory standards, especially NR-01 with the obligation to prepare a Risk Management Program (RMP) has increased pressure on organizations to manage occupational risks. Companies need to establish mechanisms to protect the health and safety of their employees to meet legal obligations and reduce the damage caused to their employees and society. Organizations need to recognize the risks that make up their activities and establish measures to eliminate or reduce the potential damage that these risks can cause, and the proposed methodology seeks to solve this problem.

2 OBJECTIVE

The present work aims to present a system of recognition of occupational risks classified as physical, chemical, biological, ergonomic and accident risks, in order to establish criteria for prioritizing the evaluation of each agent of these risks, in order to enable better allocation of resources provided for the management of workers' health and safety.

3 METHODOLOGY

The methodology begins with the completion of checklists and questionnaires on the environmental risks inherent to each homogeneous exposure group (GHE). In this step, the qualitative aspects of each risk

agent will be raised, such as risk group, source generating the agent, time of exposure to the agent and health effects that they can cause. Once the qualitative assessment is completed, it is necessary to quantitatively evaluate each agent, this will be done with the attribution of the damage potential of each risk agent so that the degree of risk of these agents is observed, this degree is verified through a risk matrix, where the time of exposure to the agent and its potential for damage will be observed, so it can be classified as tolerable, moderate, substantial or intolerable. The methodology ends with the classification of the relevance of the sectors and the agents of risk observed, this will be done by observing the number of workers in each GHE and assigning values for each degree of risk.

4 RESULTS

The result of this methodology will be consolidated in a calculation where it will be possible to observe the contribution that each occupational agent and that each sector offers in terms of environmental risks. This system will help organizations to define specific programs to reduce work accidents and occupational diseases.

5 CONCLUSIONS

By carrying out the proposed methodology, organizations will be able to invest their resources in the sectors and risk agents that have the most impact and, with that, will be able to improve their performance in health and safety at work.