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NR-12 Considerations and its Importance in Prevention of Work Accidents

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ABSTRACT : Accident at work is an occurrence resulting from work practice that causes bodily harm or death, removing the worker from his professional activity permanently or provisionally. The absence of safety guards and safety devices, together with the conditions of use and the workers' lack of preparation, are the major causes of accidents with machinery and equipment. Work safety is an increasingly discussed and valued issue, especially when it comes to industrial automation, which is a particularly dangerous area. In Brazil, the regulation of occupational safety is determined by some national and international norms and standards. Among these, we highlight the NR12, which presents principles of work safety in machinery and equipment. In this sense, the main objective of this study is to analyze the application of the NR-12 Standard and its importance in the prevention of occupational accidents, with a view to preserving the employee's physical integrity. As for the methodology, the exploratory and bibliographical research with qualitative approach was used. Security standards are so severe that, contrary to being practiced, they end up being utopian, which keeps the security problem quite real and unresolved. It is concluded, therefore, that to solve the security problem in companies, it is necessary to invest in employee training and also to reevaluate the NR-12, so that it becomes clearer, reducing the possibility of different interpretations.
KEYWORDS: Safety. Work accident. Regulatory Standard 12.

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I. INTRODUCTION

Paradigm shifts in the importance of human resources in an enterprise have become a constant from an administrative standpoint. Topics such as satisfaction, quality of life at work, and hygiene and safety today have gained as much focus as labor law, the largest conciliator between employer and employees (ALMEIDA et al., 2012).

Any industry that has a process or operation ends up involving equipment and procedures that create a hazardous area for workers thus undermining the safety of the work environment and can wreak havoc on materials and often damage to humans. Therefore, it is important that the production line has the necessary protections to ensure the health and physical integrity of workers. Based on national and international standards, the NR12 has in its context specifications and requirements to prevent accidents at work (GARCIA, 2015).

Regulatory standard NR-12 determines standards that seek to reduce accidents involving employees during work activities. The NR-12 reveals information and demands for machinery safety and its operators in a comprehensive way, from design to disposal. In addition, it establishes work and safety processes, which must be employed and elaborated in a specific way, according to the protocol, the task and the position, starting with knowledge and risk analysis (PEREIRA, 2015).

According to Mendes (2001), an accident begins long before a company's installation design and production process. The design you choose and your other prior choices (such as machinery and equipment) can influence the likelihood of work accidents. In this regard, the new Regulatory Standard NR-12 has established that safety equipment on manufactured machines and equipment cannot be optional.

Therefore, in view of the above, the main objective of this study is to analyze the application of the NR-12 Standard and its importance in the prevention of occupational accidents, in order to preserve the employee's physical integrity.

Thus, aiming at a better distribution of the theme, the study was developed in chapters, as follows:

The first chapter deals with the introductory part of this study. In the second one it explains about the safety and accident at work, the Regulatory Norms and NR12 Standard. The third chapter deals with the methodological procedures and the fourth and last chapter discusses the final considerations.

II. RESEARCH METHOD

Before contextualizing the research procedures, it is important to emphasize what is the scientific method.

Marconi and Lakatos (2011) conceptualize scientific method as a procedure that systematically aggregates a collection of information and facts that are used by the researcher to achieve certain objectives.

According to Gil (2002), the scientific method is composed of intellectual and technical means that enable the production of a scientific research. The term method, as Mezzaroba and Monteiro (2005) is linked to the word methodology, which is the analysis of the methods practiced during the knowledge process.

Regarding the means of investigation, it is a bibliographical research. According to Leite (1997), the bibliographic research aims to know the various forms of scientific collaboration produced on a certain topic or phenomenon. Thus, the verification of the bibliographic literature will help in the acquisition of information about the current conjuncture of the content or problem in question and to identify existing publications about the theme under study.

The bibliographic review aimed to deepen the knowledge about the regulatory standard NR-12, considering the importance of this standard to preserve the physical integrity of the employee.

The research presented is also based on a qualitative approach. Rodrigues (2006) clarifies that qualitative research is used to examine problems such as psychological perspectives, opinions, attitudes and, thus, try to explain the complexity of a certain hypothesis and elucidate information, facts and theories.

Minayo (2004) considers qualitative research as one that studies human relations. Thus, the scenario of this research was to analyze the application of NR-12 Standard and its importance in the prevention of occupational accidents, aiming at the preservation of the physical integrity of the worker.

Regarding the objective, the exploratory modality was used in order to obtain more information on the subject, envisaging listing concepts about Regulatory Standard No. 12, which was possible, considering the various authors who deal with the subject.

III. RESULTS

The main objective of this study was to analyze the application of the NR-12 Standard and its importance in the prevention of occupational accidents, in order to preserve the physical integrity of the worker.

Work safety is a hotly debated topic that presents considerably different views. The relevance of safe working conditions and the restriction of the number of accidents and deaths is common sense among the population, companies, entities and the state. After all, a work-related accident, however mild, causes various disorders, not only to involved.

Brazil has several very strict laws and regulations regarding this sector, however, the statistics have not reflected a favorable result of the use of these standards. Thus, the real problem regarding this issue is the difficulty of implementing the legislation.

One of the great advances of the NR-12 was to focus on risks not only to operators, but also involving machinery and equipment in their respective industries. In a country with such social disparity even in the industrial area, it is not an easy initiative for everyone to conform to the norm. Still, the NR-12 provides various benefits to the environment, avoiding accidents that may happen with machinery and equipment.

Machine installation locations must be properly marked and unobstructed in order to ensure employee safety during operation and maintenance. Workplaces must be designed in such a way as to enable alternation and ergonomics of posture of the employee.

Machines and their facilities must have safety signs to warn workers and others about the risks they are exposed to. Operating, maintenance, and other information necessary to ensure the physical integrity of employees must also be properly marked.

Electrical installations of machinery and equipment shall be designed to safeguard the worker, by safe means, from the dangers of electric shock, fire, explosion and other types of accidents, meeting the minimum requirements for shielding, tightness, isolation and grounding. Machinery and equipment shall have stopping devices installed so that they are activated by the operator in his working position and, in an emergency, by anyone else. The fraud of these devices and their automatic activation should be prohibited.

Conformity assessment is a compulsory activity carried out by the government through a regulatory body. In Brazil, this assessment is carried out by the National Institute of Metrology, Standardization and Industrial Quality (INMETRO) and internationally by the International Organization for Standardization (ISO). Conformity assessment programs are based on two documents: the Technical Quality Regulation (RTQ), which outlines what to evaluate, and the Conformity Assessment Regulation (RAC), which establishes the evaluation method.

Finally, NR-12 is a fairly extensive and complex standard as it covers machines and equipment from various industrial areas. In addition, it contains regulations indicating how the employee should be trained in ergonomic aspects, as well as the specifications of the electrical conditions of the equipment, among others.

IV. CONCLUSION

Enactment of the standards tells us that not only does it generate long-term economic returns, but it also improves the performance of systems and workers as a whole. A rehabilitation of the industrial area through appropriate training, consulting, and changes to meet the standards becomes possible and very profitable because of the considerable return and because it is usually costly machinery and equipment.

Finally, to solve the security problem in Brazil we need to invest hard in raising awareness throughout society, this involves security professionals, organizations, machine operators, ie all citizens. Still, it is necessary to reevaluate the NR-12, so that it is clearer, reducing the possibility of different interpretations.

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