Review Article
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Review of occupational health and safety management systems

Abstract

The Occupational Health and Safety Management System (SGSST) must be led and implemented by the employer or contractor, with the participation of the workers and/or contractors, guaranteeing through said system, the application of safety measures. Safety and health at work includes the improvement of workers' behavior, conditions, and the work environment also the effective control of hazards and risks in the workplace. Having in Note that Colombian law indicates in article 2.2.4.6.8 of Decree 1072 of 2015, corresponds to the Ministry of Justice and the Law, within the framework of the protection of workers' safety and health at work, must design, develop a plan of job annual for the compliance of those as per the objectives of S.G. –SST. It is worth mentioning that the goals, responsibilities, resources, and schedule of activities must be identified in accordance with the minimum standards of the System. In compliance as per above mentioned law, the Ministry presents the Plan of Safety and Health at work effectively in 2022 and committed to promote health in the workplace of work, prevention, the classification, and the determination of risk for promoting care and well-being of servers and contractors. By setting achievable goals that facilitate an excellent implementation of SG-SST based on the principles of the PHVA (Plan, Do, Check cycle and Act) to such an extent that the legal requirements enshrined in Resolution 0312 of 2019.

Keywords: safety and health at work, occupational health and safety management system, work accidents, occupational diseases

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Introduction

Occupational Safety and Health Administration (OSHA), US Department of Labor 2017

This study compares OSHA compliance in different industries in the United States and highlights the common challenges related to the Occupational Safety and Health Administration (OSHA) and its operations. The information provided does not determine the responsibilities related to compliance imposed by institutional regulations or by the Law of Occupational Safety and Health of 1970 (the OSH Act). Since the forms of interpretation and the Standards enforcement policies may change over time, it is recommended that you ask OSHA for information. OSHA Documentation Requirements Monitoring and investigation of Work-related injuries and illnesses play an important role in preventing future injuries and illnesses and, for that reason, OSHA requires that certain industry employers' extremely dangerous situations covered by the regulations prepare and maintain records of injuries and diseases serious related with the job.[1]

An analysis of safety and health at work in the Cuban business system

Based on the existence in Cuba of insufficiencies in occupational health and safety management systems (SGSST) in companies that may be due to the occurrence of incidents and accidents at work with repercussions on their social responsibility, is of great importance for the business sector, because in the current moments within the business field at an international level it constitutes a parameter to determine if a company is socially responsible, so our country is not immune to these demands in the business context. In short, sometimes, security management systems and health at work implemented in our companies do not meet their fundamental objectives, which is to decrease either avoid the idea of incidents, accidents at job and of diseases professionals, it basically responds to the imminent inadequacies shown by the implementation of this system in companies and consequently the inadequate application of corporate social responsibility.[2]

Chilean occupational health and safety management system

The main company must implement a Safety System in the work, task or services of its line of business. Occupational Health and Safety Management or OSH Management System, for all the workers involved, regardless of their dependency, when together they comprise more than 50 workers, being able to incorporate the respective work, task or services into the Management System that has been implemented across the companies.

The Occupational Health and Safety Management System will be understood as the set of elements that integrate risk prevention, in order to guarantee the protection of the health and safety of all workers. In those works, tasks, or services in which the total number of workers, regardless of their dependence, be further of 100, the Department of Prevention of Risks at work, give to the advisory committee that employer is required for the implementation and application of this system of management.

In those works, tasks, or services where the total number of workers, regardless of their dependency, is more than 50 and up-to 100 and the main company has a Risk Prevention Department Professionals, this will provide the technical advice required for the implementation and application of this management system. If the main company does not have the mentioned Department, it may be requested to theattend technique of his organization administrator of the Law N°16,744.[3]

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Rules of security in the place of job and its impact in the industries of the United Kingdom

In their article "Workplace safety regulations and their impact on UK industries", Harrison SE,[4] analyzes the impact of workplace safety regulations on manufacturing industries in United Kingdom. The article begins with a description of workplace safety regulations in United Kingdom. The rules are established by the Law of Health and Security in the Job of 1974 and apply to all the employers of the United Kingdom. The rules require that employers take measures to protect the health and safety of its employees. These measures may include the provision of personal protective equipment, safety training and creating a safe work environment.

Harrison,[4] then discusses the impact of workplace safety regulations on manufacturing industries In United Kingdom. The article finds that safety regulations have had a positive impact on the reduction of the accidents among labors and the diseased professionals. The rules have also helped the companies to improve the health and welfare of the workers.

The article identifies several areas where safety standards could even now be improved. For example,the article suggests that standards should be more specific for different industries. This would help to ensure that standards are effective in protecting the health and safety of workers in each industry as per the hazard involved in particular to the same industry.

The article concludes that safety regulations in the workplace are an important part of the protection of the health and the security of the workers in the United Kingdom. These rules have a positive impact on the reduction of occupational accidents and occupational diseases. However, the rules could be improved to make them even more effective in protecting the workers.[4]

Occupational health and safety legislation in Canada:

Health and safety regulations in Canada is established at two levels: federal jurisdiction and jurisdiction in each of the 10 provinces and 3 territories of Canada. This guide is focused on the federal jurisdiction of Canada. Therefore, to see in detail the standards that apply in each territory, it will be necessary to go to the corresponding administrations of each province and territories, in which all the necessary information can be found, from the rights and duties of employers and workers to how to proceed case of exist some guy of contentious between the company and the employees:

Part II of the Canada Labor Code, 1985 (Canada Labor Code, RSC 1985), which establish the conditions of security and health in the work environment to achieve so much by the companies as by the workers. Federal labor law applies in the federal government, in certain industries considered as the key and in most Crown Corporations (which are businesses that the federal government owns and manages). In total, federal law covers approximately 10 % of the force of job of Canada.[5]

Occupational health and safety management systems: a review of their effectiveness to ensure safe and healthy workplaces

In his article **"**Health and safety management systems in the word a review of its effectiveness in ensuring safe and healthy workplaces", JR Wilson analyzes the effectiveness of occupational health and safety management systems (SGSST) to ensure safe and healthy workplaces. Reviews are the evidence on the effectiveness of SGSST. The evidence shows that SGSST are effective in reducing occupational accidents and illnesses among professionals. OHSMS can also help improve the productivity and customer satisfaction.

Without embargo, Molano and Arevalo also points out that the effectiveness of the SGSST can vary according to the context. The SGSST are more effective in companies that have a strong safety culture and that are committed with the improvement as an ongoing process. This article concludes that the SGSST are a part important of the protection of the health and the security of Workers. However, it is important to implement SGSST effectively so that they are effective.[6]

General social security health system SGSSS

Was created with the aim of providing a new organization to the health sector, so that the gradual and progressive expansion of coverage and access to health for the entire population of the country. The SGSST has been in operation for 13 years (since Law 100 of 1993). This health reform, in addition to being structural, had important impacts on people's health and quality of life, mainly through changes in coverage, quality and demand of the services offered. It should also be noted that the resources allocated to the sector health have increased substantially after of the Reform. In fact, he total cost in health represents close to 5 points of the GDP, where the amount allocated to subsidies reaches almost 3 points and has a growing trend. The Occupational Health and Safety Management System (SG-SST) covers a discipline that seeks to prevent injuries and illnesses caused by working conditions, besides of the protection and promotion of the health of the employees.[7]

Design of the occupational health and safety management system of the Edgar Company Villalobos SAS

The Ministry of Labor committed to policies for the protection of Colombian workers and in the development of international standards and agreements established the System of Occupational Health and Safety Management (SG-SST), which must be implemented by all employers and consists in the development of a process logical and by stages, based in the ongoing improvement which includes the organization's policy, planning, implementation, evaluation, audit and improvement actions with the objective of anticipating, recognizing, evaluating and controlling the risks that may affect the security and health in the context of labor.

The greatest effects of unfavorable working conditions are work accidents, occupational diseases, absenteeism, staff turnover and an inadequate organizational climate that generates decreased productivity and deterioration in the quality of life of workers.[8]

Proposal and implementation of the occupational health and safety management system in the company optima consulting SAS

The development of this project in the implementation and execution of the system of management of the security and health of the job, arises as a need in optimal in the company.

SAS since it lacks an SG-SST model that addresses the current requirements of the new management system thatrequires employers to monitor and review working conditions that affect or benefit the well-being, safety, and health of workers by promising to carry out the actions of continuous improvement. For the above, the application of the theoretical concepts acquired throughout is taken into account, throughout the business administration career in the areas of

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administration and talent management human, since the application of said concepts in conjunction with the new SST system allows taking decisions and measures to identify hazards, risk assessments and determination of controls, the incident investigation the development and review of health and safety policy and objectives in the job. The implementation and execution of the occupational health and safety management system aims to promote, prevent, and control the safety and health of the worker, protecting themof occupational risk factors, placing it in a workplace in accordance with its conditions psycho-physio-logical and keeping it in attitude of production of work.[9]

Identification of hazards, risk assessment and establishment of controls within the framework of the implementation of the occupational health and safety management system in the María Company Magdalena

Currently, organizations worldwide have expressed the importance of prevention and implementation of health and safety management systems in the work, thus seeking the well-being of its workers, contributing to the sustainability of the business and the productivity of the organization, for them, it is essential that companies take direct actions that allow promoting the protection and health of employees, thus achieving the fulfillment of goals and short or medium-term objectives, in addition to increasing the retention rate of human talent, preventing maximization of the work absenteeism and the costs associated with medical expenses for doctors in such situations, by it, the failure to identify the dangers that arise during the company's activities and lack of knowledge of the risks that employees may face will give rise to one or more dangers in the company when carrying out the aforementioned tasks, which will result in personal threats and the psychological integrity of the collaborators. The company Maria Cupcake Ortega Achury, during the last years of its operation no one has managed to clearly identify the dangers to which its collaborators are exposed with the respective risk assessment, which has generated a barrier to the establishment of controls specific for physical and mental care and well-being, with its collaborators being the most important resource of the organization, these shortcomings arise due to the absence of the implementation of the Management System for Safety and Health at Work. This is why we intend to contribute significantly so that initial guidance and support can be provided to mentioned system to mitigate, eliminate or replace risks that may affect the health and safety of employees.[10]

System of management of security and health in the Job (SG-SST) in Colombia

The Occupational Health and Safety Management System (SG-SST) is a set of policies, procedures and practices that are designed to identify and control risks at the workplace job. The SG-SST is based on the principle of risk management, which involves identifying risks,assess its gravity, take necessary measures for control them and monitor its effectiveness.

The Colombian Ministry of Labor has the authority to carry out audits of the SG-SST. The Audits are conducted to verify compliance with the law and to provide advice to employers onthe implementation of the SG-SST (Ministry of job). Employers who meet SG-SST requirements may choose to obtain certification from the SG-SST system. The SG-SST certification is a guarantee that the company complies with the standards international in subject of security and health.

Occupational health and safety management system, MSMEs of Sincelejo, Colombia

Healthy and safe environments are the priority today in companies, it depends on it that the human resource is free of dangers and risks at the workplace. The implementation of the SG-SST (Occupational Health and Safety Management System) hereinafter SG-SST, in companies is a regulatory obligation, not only due to the legal provision, but also due to the social implications it has with its environment, by developing policies for workers that guarantee their protection. In this regard, entities such as the ILO (International Labor Organization), hereinafter ILO and the WHO (World Health Organization), hereinafter WHO, have unified efforts with governments to establish health and safety policies that raise employers investing in the prevention of accidents and occupational diseases; given that the social and economic costs are very high if it is not implemented.[11]

Therefore, accidents and occupational diseases generate a negative impact on companies, related to the decrease in the level of productive activity and beyond that panorama, injuries Physical injuries lead to job loss, physical and mental alteration, and in many cases, independence or death of the worker, greatly affecting his family unit. In this regard, the ILO indicates that "The Final cost of occupational diseases is human life. This impoverishes the workers and theirfamilies and can weaken to communities whole when lose to their workers further productive." (OIT, 2013, p2).

Implementation of the system of management of security industrial and health occupational in JAFERPA JFP

SAS The need to standardize the criteria and concepts regarding occupational health and safety motivated the creation of the OHSAS 18001 standard, which allows organizations to control and minimize the security risks and provide confidence in the market. The implementation of a management system occupational safety and health in business development allows senior management to be involved in the aspects of worker safety, associating occupational safety and health with standards nationals and demonstrate to employees and third parties the company's will to improve conditions labor and health and safety performance. The objective of the implementation project of occupational health and safety management system at JAFERPA JFP SAS is to guarantee the integrity physical condition of employees, reduce occupational accidents and illnesses, avoid unsafe handling of equipment and the ignorance of the associated risks to each work, and reduce the damage in infrastructure and the failures human.[12]

Design of the system of management of security and health in the job for the company ITEM J.C. & INC SAS

The occupational health and safety management system consists of the development of a logical and step-by-step process, based on continuous improvement, including policies, organization, planning, applications, evaluation, audit, and improvement actions with the objective of anticipating, recognizing, evaluate and control the risks that may affect safety and health at work, the foundations of which must be based on the PHVA cycle. Its principle is to establish, implement, sustain and update the basic tools for managing the risks of an organization through elements such as the legal framework on safety and health at work, policy, risk inventory, safety regulations industrial hygiene and safety, accident investigation, training program, permits work, checklists and emergency plan. With the

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design and implementation, companies will be capable of reducing risks, accidents and their associated costs, as well as promoting the well-being of their employees and stakeholders. In this way there will be fewer interruptions in production processes and operational, so there will be fewer emergencies at the workplace and thus fewer people on temporary or permanent sick leave. For this reason, the company ITEM JC & CIA SAS.[13]

Analysis to the implementation of the occupational health and safety management system for the sector agricultural in some departments of Colombia 2018

Occupational Safety and Health (OSH) is defined as the Discipline that deals with the prevention of injuries and illnesses caused by working conditions, and the protection and promotion of workers' health: however, given This description in some departments of Colombia has been given a still deficient importance in most economic sectors; It is indisputable that this is a complex issue for everyone, employers and employees. The countryside is no exception; On the contrary, its implementation offers a series of difficulties that must be identified in order to improve the results of the implementation of the occupational health and safety management system (SGSST). On the other hand, the attention of the State is not directly proportional to its importance. Without a doubt it deserves a differentiating treatment, taking into account the special conditions thereof. Various factors influence the production of a farm: on the one hand, high staff turnover, including lack of labor; and on the other hand, factors such as climate (seasons of intense rain or drought), high cost of inputs, pests and diseases, and even, internal and international trade in agricultural products, among others. In the case of some departments of Colombia, in the application of the Principle of Equality enshrined in the Constitution Politically, the rural worker has the same rights as those who work in the urban area. The result will be Design a strategy to adapt the Occupational Health and Safety Management System to the sector rural.[14]

System of management of the security and health in the Job

The different conceptions about the health and its relationship with the job, point-of-view from the conceptions of institutions, government entities and authorities versed in the subject of planning, organization and implementation of management systems specialized in how to develop health and safety in various types of companies. One of the activities is the explanation and guidance of occupational health and safety standards for a real transition from an Occupational Health Program to an occupational health and safety management system, at the highest level of implementation for companies of the various economic sectors that manage to build a feasible management system, adjusted to their needs, that effectively prevents accidents and illnesses of workers, caused by conditions at work, wanting to maintain high physical, mental and social well-being with actions timely improvement compatible with the company's other management systems.[15]

Evaluation of the occupational health and safety management system in an engineering and civil constructions in accordance with occupational health and safety regulations in Colombia

"Evaluation of the occupational health and safety management system in a company engineering and civil constructions in accordance with occupational health and safety regulations in Colombia" by Bedoya[16] evaluates the occupational health and safety management system (SG-SST) of an engineering and civil construction company. The evaluation was carried out in accordance with the standards minimums established by Colombian legislation for companies with between 11 and 50 workers permanent, classified in either risk IV and V.[16]

Implementation of the occupational health and safety management system in the city of Cartagena

All companies that carry out any economic activity have the obligation to carry out actions to guarantee the safety and health of its workers in the workplace. Some companies do ignore the fact that its collaborators are exposed to many types of risks regardless of the work they perform and at the moment in which the intrinsic risks in the activities carried out materialize daily and affect the workers in one way or another. A review of the main results and most relevant changes that occupational health has had in Cartagena was carried out to identify the causes of the inadequate implementation of the occupational health and safety management system (SGSST).[17]

Level of acceptance of the implementation of the system of management of security and health in the job, in the company Torre Amadeus PH, in the year 2021

Determining factors in the level of acceptance of the implementation of the Occupational Health and Safety Management System, in the Torre Amadeus company PH, of the city of Bogotá, in the year 2021, through the application of instruments that allow establish an initial diagnosis of the company, with the purpose of generating recommendations to the company Amadeus PH Tower, proposing a design of strategies to raise awareness among managers and workers, through talks, training and SG-SST training. It was determined that the company, does not have a high level of acceptance and commitment on the part of workers of the company and as a consequence the current state of the company is critical according to the evaluation of the minimum standards, there are no policies to monitor working conditions, actions on issues of promotion, prevention and trained personnel trained to guide workers regarding the use or proper use of personal protection elements during the development of work activities.[18]

Regulatory evolution of safety and health

(Political Constitution of Colombia of 1886 and the Political Constitution of 1991), starting with law 57 "Uribe Law" of 1904 aimed at the well-being of workers, until Resolution 1016 under the constitution of 1886. implementation of the System of Management for Safety and Health at work established in Decree 1072 of 2015 leaving in knowledge the compilation of the basic requirements, which are based on promoting prevention and comprehensive health protection of employees, foresee possible risk factors for adopt measures for the protection of workers. On the other hand, the implementation of the Management System for Safety and Health at work established in Decree 1072 of 2015, leaving in knowledge the compilation of the basic requirements, which are based on promoting the prevention and protection of the health of manner integral of the employees.[20,21,22]

Conclusion

According to what was consulted with the Occupational Health and Safety Management Systems (SG-SST), it was determined that in different countries the applications of these systems allow compliance with the regulations that are required and that allow normative and technical standards. Each country analyzed has particularities of interest and also specific weaknesses that demonstrate that the systems are not perfect and are in processes of continuous refinement

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and improvement that, in the case of the United States, are applied with OSHA standards, with special care in standardization and also investigation of work-related injuries and illnesses, these being a priority; contrary to the Cuban system where the deficiencies of the general social security system significantly affect the forecast of occupational diseases and work accidents, which digress between their occurrence and the undefined responsibility of the state and the private employer that in other countries such as Chile and the United Kingdom, has clearly defined its responsibility and coverage through a provident fund or insurance policy, where in the latter country it applies safety standards as an important component of worker protection; while in Canada the available jurisprudence allows it to permeate all members of the system, in a dynamic of responsibilities between employers and workers.

Supported by all the experience of previous countries, Colombia has assimilated an atomized model of social security taking into account the prevention of work accidents and occupational illnesses as priorities, in accordance with the latest legal updates of Colombian social security, which mentions the occupational health and safety management system, as the main figure when it comes to complying with occupational health and safety standards.

To continuation, he presents some conclusions specific of the articles reviewed:

The implementation of a SGSST is a complex process that requires the commitment of senior management and of all the workers. A SGSST effective has to include the following items:

- Policy of security and health in the job
- Planning of the security and health in the job
- Implementation of the security and health in the job
- Check and assessment of the security and health in the job
- Actions of improvement of the security and health in the job

It is important for companies to carry out a risk assessment to identify hazards and evaluate their gravity.

- The companies they must implement controls for reduce the risks to a level acceptable.
- The companies they must train to the workers about security and health in the job.
- The companies they must investigate the accidents and Occupational diseases for identify the causes and take measures for prevent his repetition.

In short, the implementation of an SGSST is an important investment that can help protect the health and safety of the workers and improve the productivity of the company.

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Conflicts of interest

The authors declare there is no conflict of interest.

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