Implementation of the Occupational Health and Safety Management System (OSHMS) in Colombian Companies

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Abstract

This research describe the implementation of the General System of Occupational Safety and Health (OSHMS) in Companies Colombia. To implement OSHMS in Colombian companies, it is necessary to make a diagnosis to companies starting with statistical records of absenteeism, followed by accidents and finally, occupational diseases. In the same way, it requires the identification of hazards and assessment of the risks to the implementation of the GTC-45 standard whose base is the Decree 1072 of 2015, subsequently different stages of the PDCA cycle (Plan, Do, Check and Act). It is necessary for companies to take ownership of the guidelines given by the Decree 1072 of 2015, which is critical to implement the OSHMS constituted by the initial assessment, hazard identification, evaluation and assessment of risks, hazards and risk management, policy and objectives, annual work plan and allocation of resources, training program, training, induction and re-induction in OSH, prevention, preparedness and response, reporting and investigating incidents, accidents and occupational diseases. Criteria for recruitment and procurement of services, measurement and evaluation and mea-
In each stage of the implementation of the OSHMS, it is recommended to keep the records and follow-up annually to evaluate the preventive and corrective actions. The implementation of the OSHMS must be carried out through continuous improvement processes.

**Keywords**: Management System of Occupational Safety and Health (OSHMS), planning, evaluation, improvement actions

**Introduction**

It is important for the implementation of the System of Management of Occupational Safety and Health (OSHMS) in companies in Colombia according to Decree 1072, is compulsory through the transformation of its administrative processes; legal, human, financial, political, cultural, to compete in a world of demands in the face of the threats and opportunities that are presenting in a changing world, in the face of such substantial changes it is essential that the organizations begin to analyze their weaknesses to focus on what they want to improve[1].

These processes in companies must meet demands of the given by its hierarchical structure and processes that require each activity, it is necessary then, analyze the position of the worker in front of your profile, duties, wages, hours of work, leadership and decision-making. If the company loses this vision, the problems flare up and presents problems that affect the development of the activities [2]. That is why it is important, keep the worker of what is being presented internally; similarly, it must be trained to know what risks or danger that can be immersed. In addition, the implementation of the OSHMS that is going to allow to take actions to maintain a healthy work environment [3].

Article 1 of Law 1562 of 2012, established that the occupational health program shall be understood as OSHMS [4]. The International Labor Organization (ILO) in the year 2001 published the Guidelines relating to the OSHMS which gave them a tripartite approach become a model used to develop national standards [5, 6]. Therefore, it is encouraging a culture of self-care and prevention directed and oriented on the basis of the regulations in this regard have been implemented in the country.

The Andean Community of Nations, of which Colombia is a member country, in Decision 584 of 2004 adopted the "Andean Instrument on Occupational Safety and Health", by which sets out the basic rules that serve as the basis for the gradual and progressive implementation for the harmonization of laws and regulations governing the particular situations of work activities which are developed in each of the Member Countries [7]. At the same time the Law 1562 of 2012 defines the OSHMS, as a discipline that deals with the prevention of injuries and diseases caused by conditions of work, protection and promotion of workers' health [4]. This law aims to improve working conditions and environment. As well as, health at work through the promotion, maintenance of the physical, mental and social well-being of workers.
Implementation of the occupational health and safety management system (OSHMS)

The Decree 1072 of 2015, sets the OSHMS as "the development of a logical process in stages, based on continuous improvement that includes the policy, organization, planning, implementation, evaluation, audit and improvement actions with the aim to anticipate, recognize, assess, control risks that may affect the safety and health at work". Similarly, the Decree 1295 of 1994, article 56 points to the need to prevent occupational hazards; establishing responsibilities on the part of the state, in order to ensure the safety of workers in the prevention of occupational accidents and diseases. The Decree 1443 of 2014, ordered the OSHMS implementation through the Regulatory Decree Only Work. According to the ILO propose the implementation of criteria and standards that are critical in the occupational safety and health systems, achieving better results in the prevention of incidents and accidents at work.

It should be noted that the health and safety at work remains the subject of studies and reviews by international organizations, thus allowing to generate policies that contribute to the prevention of occupational accidents and diseases, thus achieving a healthy working population in the future. To formulate and implement the requirements of the occupational health and safety management system at work, plays an important role management and managers of enterprises as well as responsible to carry out OSHMS.

In Colombia the norms that protect the Occupational Health Programs Today OSHMS, were given by guidelines at the national level, international conventions of the ILO, rules of the Substantive Labor Code, many rules have been modified, deleted, regulated, reformed, so will still continue these processes and in this case, the general system of occupational hazards; they have been regulated through 1072 of 2015 which is binding in its compliance. In addition, must relate to other standards that are detailed in Table 1 and facilitate the implementation of the OSHMS.

Table 1. Laws, decrees and resolutions governing the General System of Occupational Safety and Health (OSHMS) in Colombia

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<th>Laws</th>
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<td>Law 9 of 1979 [12]</td>
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<td>By which the Manual is issued only for the qualification of the loss of labor capacity and occupational.</td>
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<td>By which is issued the table of occupational diseases.</td>
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Table 1. (Continued): Laws, decrees and resolutions governing the General System of Occupational Safety and Health (OSHMS) in Colombia

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<tr>
<th>Decree 1443 of 2014 [17]</th>
<th>Provisions for the implementation of the OSHMS</th>
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<tr>
<td>Resolution 6045 of 2014</td>
<td>By adopting the National Plan for Safety and Health at Work 2013 – 2021</td>
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For the initial evaluation of the OSHMS identifies the following activities: review the current regulations with regard to occupational risks and minimum standards of quality assurance system, verify and identify hazards, evaluation and assessment of risks, enable process changes, facilities, equipment, machinery, among others, identify threats and vulnerability assessment of the company, annually, including reports of workers, evaluate the effectiveness of measures, jobs within the framework of the epidemiological surveillance programs, describe sociodemographic data to workers and characterize the conditions of health, develop record and follow up on the results of the indicators defined in the OSHMS of companies [1].

**Materials and methods**

In order to implement and develop these phases of a SG-SST, it should be borne in mind the following: the Occupational Safety and Health Policy and Colombian Technical Guide (GTC-45) [2], responsible, the current regulations and the required documentation, planning of occupational health & safety management system at work, hazard identification and risk assessment in occupational safety and health and periodic review through continuous improvement.

To address the implementation processes it is necessary to apply the PDCA cycle (Plan, Do, Check and Act). Which is based on a concept called spiral of continuous improvement or Deming Cycle [20]. The Figure 1 describes the process of implementation of the PDCA cycle. The information according to the methodology used should be documented and updated annually especially when a deadly accident at work or a catastrophic event in the company or when changes in processes, facilities in the machinery or equipment.
Results and Discussion

The results are based on compliance with the standards that apply and requires OSHMS, also in the objectives of the annual work plan, schedule, evaluation of actions preventive, corrective and improvement, fulfilment of the epidemiological surveillance programs commensurate with the dangers and risks of the company, analysis of records of occupational diseases, incidents, accidents at work and labor absenteeism by diseases [1]. In addition, the analysis of implementation of control measures in the hazards identified and prioritized. Before you begin the implementation of the OSHMS is important to consider the following: statistics of absenteeism, identify existing standards on safety and health at work, you must identify the hazards and risks existing in the company, and then weigh them, determine the controls that has been carried out in accordance to the prior controls and those that have already been made to analyze if you are adequate, must be analyzed data collected from agreement in relation to the health surveillance of workers in enterprises [1, 8].

With all of the above, you must analyze the data collected according to the results obtained, it is important after the results, to determine the findings that are fundamental to perform the improvements required by the system, and to do this we need to match data with the reports given by the audit that should be objective and consistent with the evidence or stands with what is in your company or organization, so results should be in line with each of the stages of the management system [2, 8]. Another point to consider are the indicators that are part of the results, structure, and processes, in the Decree 1072 of 2015 and that are fundamental to measure the health & safety management system at work [1,14]. At the same time, account must be taken of those minimum standards in the OSHMS, which serve to
identify the failures and opportunities for improvement in the initial assessment, the improvement plan according to the initial evaluation, in the implementation, in the follow-up, in the surveillance inspection and control; in accordance with Resolution 1111 of 2017 [18].

Conclusions

The Decree 1072 of 2015 is beneficial because it contributes to the promotion of occupational safety and health and the prevention of occupational hazards. Companies must take into account that in order to carry out a program of OSHMS that must have knowledge of the legislation in force that regulates the implementation. In addition, you should discuss the risks and dangers to which workers are exposed by the daily activities that made and its exposure time. They must develop a policy and objectives for safety and health at work that leads to guide the institutionally processes and that the objectives for the development of the tasks objectively to get through the fulfilment of tasks and actions to perform with them reaching the proposed goals. An annual plan of action allows you to keep organized the activities of the OSHMS, with adequate resources to develop the activities in such a way that training according to the needs of companies. With all the above, it seeks to take measures to prevent accidents at work and occupational diseases; in such a way that the results achieved to measure and control actions that reduce or eliminate the risks of administrative staff, employees, contractors and suppliers. It is recommended to have evidence of all developed in the different stages of the PDCA, in order to respond to all of the actions developed in order to avoid incidents, accidents and occupational diseases. It is recommended to keep the action plans annually and schedules with the different activities are made in a timely manner to the managers and workers to those persons who are responsible for health and safety management system at work and must inform in time to avoid onerous sanctions which are injurious to the organization.

References


Received: October 2, 2018; Published: November 1, 2018