



Degree of Compliance with The Guidelines of The Safety and Health Management System in The Work, A Construction Company Dedicated to The Assembly of Structure and Lamination, Tlaxcala



Iván de Jesús Romero Cruz • José Luis Moreno Rivera • Alejandra Torres López

Department of Administrative Engineering, National Technological Institute of Mexico, Technological Institute of Apizaco, Tlaxcala, Mexico
ingnavirom@gmail.com

Abstract: The objective of this research is to obtain a diagnosis about the degree of compliance with the guidelines of the Occupational Health and Safety Management System, with the application of the guidelines checklist, to determine how the application is currently of safety and occupational health standards, for a small company dedicated to the assembly of structure and lamination, located in the state of Tlaxcala, with the purpose of knowing the state of compliance that the company has of the standards that protect workers, it seeks to generate greater confidence for the company at the time of performing the work giving a strengthening as an organization. The checklist of guidelines for the Occupational Health and Safety Management System is used, in which the commitment and involvement, the occupational health and safety policy, planning and application, implementation and operation and verification are evaluated. They were used to detect areas of opportunity in the application of the security system guidelines.

To cite this article

[Cruz, I. D. J. R., Rivera, J. L. M. & López, A. T. (2019). Degree of Compliance with The Guidelines of The Safety and Health Management System in The Work, A Construction Company Dedicated to The Assembly of Structure and Lamination, Tlaxcala. *The Journal of Middle East and North Africa Sciences*, 5(8), 24-27]. (P-ISSN 2412- 9763) - (e-ISSN 2412-8937). www.jomenas.org. 4

Keywords: Guidelines; Security; Health; Verification; Regulations.

1. Introduction:

Among the advantages that can be achieved with the implementation and application of a system safety and health can be cited reducing the number of accidents through risk prevention, compliance with applicable legislation in the organization, the reduction of occupational diseases and occupational risk materializing infrastructure and working environment according to the needs of employees, improve the image of the entity in the market, increase productivity, identify incidents and accidents, among others (Guerrero, 2012).

Personnel employed in the construction industry decreased (-) 0.7% in May 2018 against the previous month, with data adjusted for seasonality. By type of hiring, personnel dependent on the company name or hired directly by the company was reduced (-) 1.2% (the number of workers was lower in (-) 1.2%, that of the employees in (-) 0.8% and the group of others - which includes owners, family members and others unpaid workers- increased 2.8%) and staff not dependent on the reason Social grew 1.5% in its monthly comparison (INEGI, 2018).

Traditionally, the construction sector has been a great generator of jobs for the Mexican economy. In 2017, the construction sector generated a total of 6 million 111 thousand 055 jobs, of which 4 million 062 thousand 514 corresponded to the building (Residential and Non-

Residential). In relative terms, the construction sector participated in 2017 with 12% of total jobs, of which 8.1% corresponded to the building (Balbuena & Atayde, 2018). See Figure 1.

The model for the preparation of the occupational health program contains a practical description of the main elements that make up occupational health and safety systems based on the parameters established by the ICONTEC, in the NTC - OHSAS 18001 standard and following the general guidelines of the the management systems that have as a platform the processes of continuous improvement, which help to generate a sustainable culture of security in the company (Betancur & Vanegas, 2003).

2. Methodology:

The activities were defined, with which the research will be carried out, which range from the choice of the type of instrument, the instrument to be applied, and the determination of the size of the population to be surveyed. See table 1.

2.1. Research Instruments:

Checklist of guidelines Management System Safety and Health at Work as a single data collection instrument was applied.

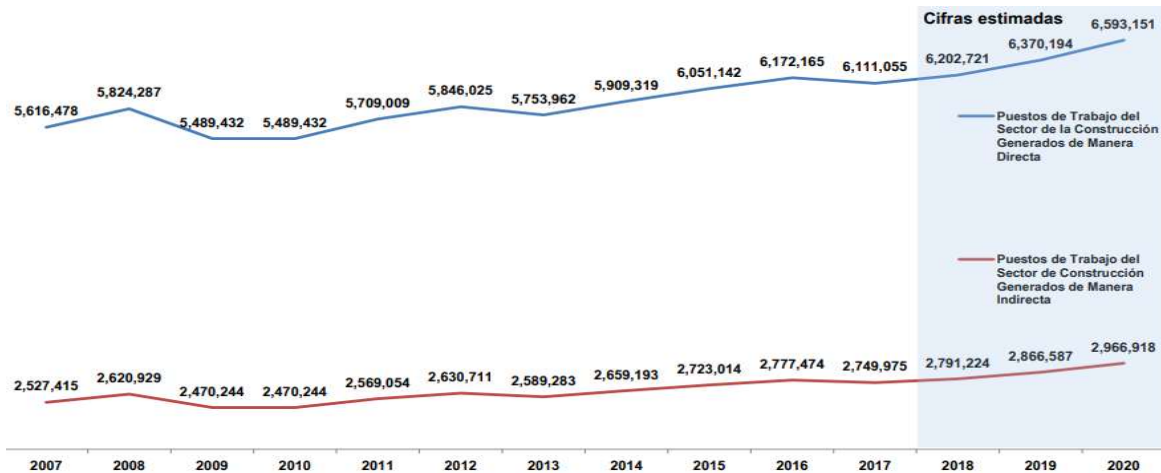


Figure 1. Trend and estimation of the jobs generated by the Sector of the Construction. Center for Economic Studies of the Construction Sector (CEESCO) with data from INEGI and the IMSS.

Table 1. Determination of the Instrument and Population.

Type of Instrument	Poll
An instrument to apply.	Checklist of guidelines for the Occupational Health and Safety Management System.
Size of the population to be surveyed.	It was determined to survey all the employees of the company which has 60 workers.

Elaboration Own.

Within this there are four sections in columns, in the first, the guidelines are mentioned, in the following the indicator, in the third the compliance and a last one of observations.

Among the guidelines to be evaluated is the commitment and involvement, where the principles of the employer are evaluated, such as the implementation of preventive actions, the promotion of a good working environment among others.

In the second section, the occupational health and safety policy is evaluated, with policy, direction, leadership, organization and competence sections.

The third section evaluates the planning and the application, with items such as Diagnosis, Approach for the identification of hazards, evaluation and control of risks, Objectives and Program of safety and health at work.

In the fourth section evaluates the implementation and operation, with areas of structure and responsibilities, training, measures of prevention, preparedness and emergency response, contractors, subcontractors, business, public or private entity, service and cooperatives, consultation and communication.

In section five the normative evaluation is carried out in fields such as: Legal and other requirements.

In section six, the verification is evaluated in areas such as: Supervision, monitoring and follow-up of performance, health at work, Accidents, dangerous incidents and incidents, non-conformity, corrective and

preventive action, Investigation of accidents and occupational diseases, Control of Operations, Change management and audits.

In the seventh section the control of information and documents is evaluated, in the areas of: Documents, control of documentation and data and management of records. And finally, in the eighth section, the review by management is analyzed through the management of continuous improvement.

3. Data Analysis:

The analysis of the data for this instrument will be carried out by means of graphs and percentages of each of the areas that were evaluated as shown in the following graphs:

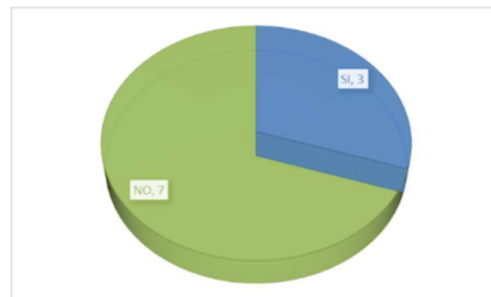


Figure 1. Commitment and Involvement

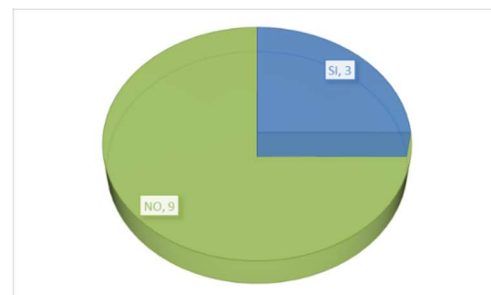


Figure 2. Occupational health and safety policy

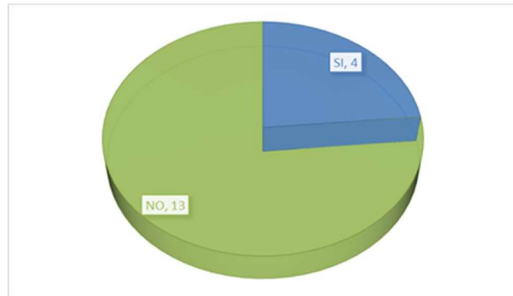


Figure 3. Planning and application.

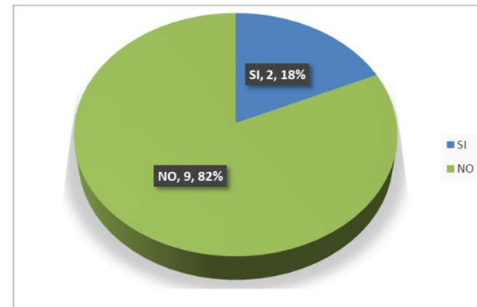


Figure 7. Control of information and documents.

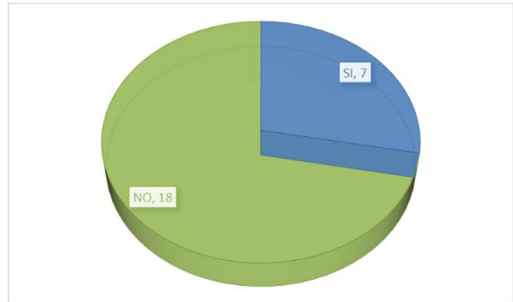


Figure 4. Implementation and operation.

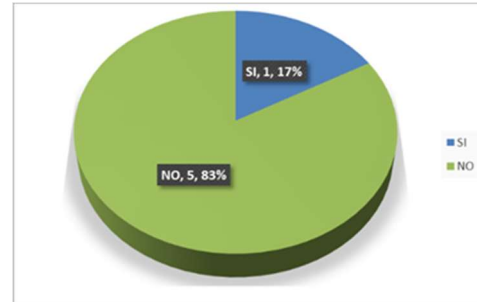


Figure 8. Revision by the address.

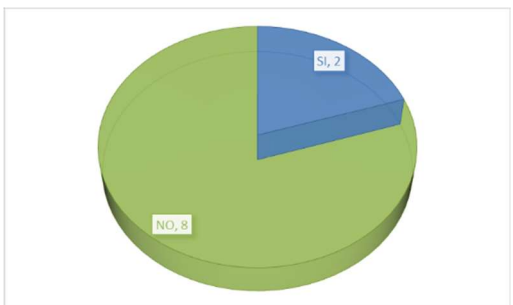


Figure 5. Normative Evaluation.

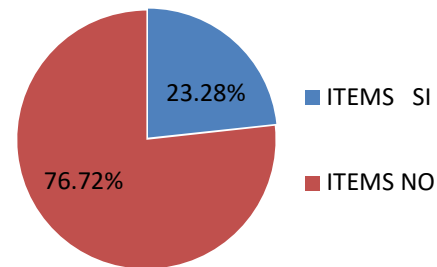


Figure 9. Percentage of compliance of the SGSST

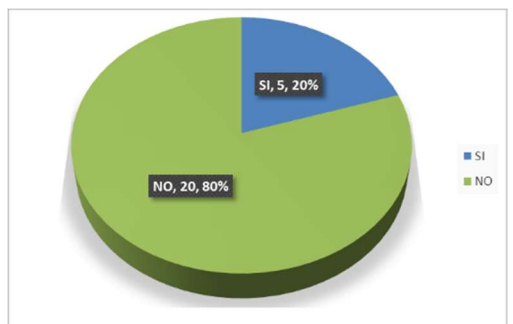


Figure 6. Verification.

4. Results:

The results shown in the Checking and Involvement section found that there is a 70% omission of the points, which indicates that it does not have a security policy, which shows the intervention of the managers.

In the second section there is a 75% omission in the revised points which indicates that there is not an adequate area of security to take charge of this area.

The third section has a 76% omission in the points reviewed, which indicates that there is no area that is registered in the accident registry, analyze the causes, proposals for improvement and take corrective actions.

The fourth section has an 80% omission in the points reviewed which indicates that the employer does not perform an evaluation of the work to be performed, and there is no cooperation in the process of investigation of work accidents.

The fifth section shows an 80% omission in the points evaluated, which indicates that they do not have a tool that allows them to assess the most characteristic risks of the activities.

The sixth party has an 80% omission in the evaluated points, which indicates that there are not continuous inspections in the maintenance area, an employer does not make notifications to the ministry of labor and does not implement corrective measures.

The seventh section 82% omission in the points evaluated. This indicates that it does not have procedures to guarantee internal communication, does not attach



the recommendations of security risks in contracts, and documents cannot be easily located.

The eighth section shows an 83% omission in the points of view, which indicates that there is no periodic revocation of the system, there are no investigations and audits, nor investigations of accidents or occupational diseases.

According to the total information there is 76% with 27 SI and 89 NO, of noncompliance of the Occupational Health and Safety Management System, which indicates that its status is deprecated with a possible serious sanction, it is recommended to rearm the management system, seek to consolidate procedures, methods and records.

Table 2. Status of compliance with the SGSST.

FINAL REPORT ITEMS SI	STATUS	ACTION PLAN
Less Than or Equal to 60%	Disapproved Serious Penalty	Rearm your management system Consolidate procedures, methods and records.
between 61 to 70%	Disapproved / Low Sanction	Review and improve what has been developed. Improve the evidence
Between 71 to 80%	Approved Improve Standard	Update master lists and diffusion
Between 81 to 100%	Approved	Maintain the SST standard
STATUS		

4. Discussions:

The analysis allows showing that omissions severely affect the most unfavorable ratings are those that

present the section of the review by the address with 83%. Followed by the control of information and documents with 82%, in the same way the verification and the normative evaluation has 80%, in penultima place the policy of occupational health and safety is found with 75% and the approach and application with a 76%, being in last place with the lowest percentages the implementation and operation with 72% and the commitment and involvement with 70%, which gives us a guide to make adjustments in the current system, in order to increase the percentage and compliance with the guidelines of the Safety and Health Management System at work.

Corresponding Author:

Iván de Jesús Romero Cruz, Eng.
 Department of Administrative Engineering, National Technological Institute of Mexico, Technological Institute of Apizaco, Tlaxcala, Mexico.
 E-mail: ingnavirom@gmail.com

References:

- Balbuena, J. A., & Atayde, H. P. (2018). *Center for Economic Studies of the Construction Sector*. Retrieved from <https://www.cmic.org.mx/cmic/ceesco/>
- Betancur, G. F., & Vanegas, R. C. (2003). *Model for The Elaboration of The Occupational Health Program with A Focus of Management Systems*. Colombia: Suratep Sa
- Guerrero, M. A. (2012). *Implementation of the Integrated Management System in the Design and Engineering Company of Cienfuegos*. Cuba.
- INEGI, IN (July 23, 2018). *Indicators of construction companies*. Retrieved from <http://www.inegi.org.mx/sistemas/bic/>

Received June 16, 2019; revised June 21, 2018; accepted June 24, 2018; published online August 01, 2019