

Organization of Maintenance activity in the Ministry of the Siderurgical and Mechanics Industries

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Summary

In the actual Siderurgical and Mechanics Industries the maintenance becomes in a activity that every time has a bigger importance, because this industry is based on a high answer speed before the demand, that implies high level of readiness of the equipment.

Another element of great importance at the present time for the maintenance activity it is the informatics of the organization process and control of the same one.

In the work a synthesis of the structure is shown that is used for the organization of the maintenance activity, starting from an appropriate administration of Maintenance, organization and control of the activity. The results achieved are also valued in the preparation and technicians' improvement as well as professionals inside the organization. It is identified the audit as a basic tool for the control of the activity.

Results of the application of this methodology are shown in the structure of the Siderurgical and Mechanics Industries in Cuba.

Key words:

Organization, planning, control, analysis.

INTRODUCTION

In the Republic of Cuba the Ministry of the Siderurgical and Mechanics Industries (SIME) is the one in charge of directing, to execute and to control the policy of the State and Government for the activities of the

Siderurgical and Mechanics Industries and for the Recycle activity.

Their origin dates of 1974 as a result of the invigoration of the process investor in the industrial sphere that the Commandant conceived Ernesto Che Guevara in the beginnings of the Revolution in the front of the Ministry of Industries. Their antecedents date of the factories or mechanical bases of support of the sugar mill industries, of the construction, mining and metallurgical that manufactured their spare parts in their beginnings. At the moment the SIME contains industries, companies and institutions whose basic activity belongs together with the metallurgical branches, ironworks, and of the recycle. It also understands a national net of sales of machineries, equipment and similar products with their respective productive branches.

The mechanical industry, undoubtedly is a creation of the Cuban Revolution. Before the Revolution this industry didn't exist in Cuba, everything was imported from, of the North American industry. In this primary stage the creation of the SIME was the consolidation of an entire series of productions that the country had prioritized and were necessary for the economic development of the nation.

Since its creation the SIME has had a vertical line of development thanks to a well structured investor plan for the production of: automotive equipment, railway equipment, agricultural machinery, iron and steel industry, equipment for the construction, machines tools, medical equipment and clinical furniture, supplies for the industry and hotels, consumption goods, etc.

The productions made by the Siderurgical and Mechanics Industries in Cuba are of high importance for the development of the country, for what is necessary to put them in exploitation in the shortest time possible and this is achieved guaranteeing the correct use of the resources material, human force and efficient exploitation of the technological equipment. To achieve this we have a maintenance systems that guarantees a high technical availability of the equipment in correspondence with the load and capacities balances foreseen.

As it is explained previously, this organization has a diversity of industries and technologies for what is necessary, to apply different maintenance systems.

DEVELOPMENT

The only will of applying a maintenance system doesn't guarantee the efficiency and effectiveness of the same one, for what is indispensable the personnel qualified in the necessary quantity and the guarantee of the raw materials.

It is necessary to start of a general planning that guarantees with the smallest possible cost that the materials and the necessary means exist in the exact moment to guarantee of the same ones.

The Ministry of the Siderurgical and Mechanics Industries of Cuba has under its jurisdiction the great majority of the companies of the Metal-mechanic sector, because there are others that belong to other Ministries.

At the present time the Ministry has 12 Managerial Groups, 178 companies, 5 Centers of Investigation and Development, 4 Associations and 1 Center of Formation and Training; where they work around 53 000 workers, of which 14% is professional of the superior level.

It becomes necessary for all the above-mentioned, to create controls and reliable databases that allow to manage information in an immediate way and regarding this, we have a company that guarantees the maintenance software, with this the organization, planning, control and analysis of the information, is

guaranteed and divulged among the companies of the SIME, this is the GMI, Agent of Integral Maintenance, that allows to carry out the following functions: effective organizer, planning of the success, control of resources, reports and graphics for the analysis that will be useful to elevate the effectiveness and efficacy of the administration processes.

The SIME has a Center of Managerial Administration and Technique and Administrative improvement, GESTA that allows all the workers to qualify for the maintenance area, it is an organization inside the SIME that maintains them upgraded in the general topics of the world environment. It is GESTA it coordinates training actions with the centers of education of the country and the foreign one and it conforms the formation policies of the main functionaries of the industry.

The SIME has a policy directed by the Ministry to guarantees a cooperation strategy among companies (in the maintenance environment).

The Direction of Maintenance, as organism rector of this activity needs of a structure in which the fluency of the information is guaranteed from the Direction of the Ministry toward the base, as well as the information of the base to the Direction of the Ministry, with the objective of guaranteeing the application in all the levels, of the policies and strategies defined by the Direction, and the control by the Direction of the development of the activities in all the levels of the organization.

The maintenance structure in the SIME it is organized of the following way, in the main Organism exists the Direction of Maintenance, Energy and Transport, subordinate to the Vice Minister of Development, in the Empress Groups it is organized of equal way, in the Empress subordinate to this Groups exists a Director of maintenance that is responsible to organize the works done by the specialized shops and brigades.

One of the means with which we count for the control of the activity are the audits to the direct executioners of the maintenance action, the

same in a general way are organized in the following way:

- The audit is carried out by specialists of the Direction and personal of support of the companies (specialists of the base with bigger experience and results in the activity that support in the work of inspecting).
- The aspects that are evaluated are, Technical State of the Equipment, Administration of Maintenance, Control of the Lubrication, Conditions Social environment and Organization and Cleaning.
- The time for auditing a company depends on the size, Small, Medium or Big, of the quantity of equipment and the grade of complexity of these, being able to be from one day until one week.
- The audits are carried out to the companies each 1 or 2 years in dependence of the results that they have obtained.

We have demonstrated that when an appropriate regularity is achieved in this activity the result of the companies it is improved, being noticed bigger initiatives number and innovations.

It is carried out an Annual Meeting to analyze the results of the work, to evaluate new initiatives in organization topics, generalization of the innovations that were able to reduce costs, being certified by the corresponding entities.

To be the SIME an Organism of the Central Administration of the State, it has the possibility to coordinate with other organisms, like it is the Ministry of Education, where starting from this coordination it is defined the policy of technicians' of half level formation and superior of the necessary specialties in the Organism.

One of the policies of the Ministry is to support to the centers of professionals' formation, in the maintenance of the technology and offer capacities to the students in their companies to train them.

Another element to supplement the necessary information that helps to the taking of decisions or to the definition of policies are the surveys. Our organization has designed a survey form starting from elements that are

necessary to evaluate to value and to prosecute the maintenance activity.

Conclusions

In this work it is demonstrated the advantages of being able to coordinate the actions of an organization as ours, where we can achieve an efficient cooperation as well a good training, the general application of innovations and the interchange of technologies and ideas of all the members of the system.

Bibliography

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