THE IMPLICATIONS OF AN INTEGRATED MANAGEMENT SYSTEM IMPLEMENTATION IN A MEAT PROCESSING UNIT

IMPLICAȚIILE IMPLEMENTĂRII UNUI SISTEM INTEGRAT DE MANAGEMENT ÎN CADRUL UNEI UNITĂȚI DE PROCESARE A CĂRNII

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Abstract: *The integration of the quality, environmental, health and occupational safety management systems is a natural trend in a globalizing world. In the future, the organizations will not survive without removing continuously the barriers, with an environment that is increasingly regulated and harmonized. This paper proposes to analyze the integrated management system in a meat processing unit, specifying both advantages and threats which arise during the process. The components of a meat slaughtering system and the interaction way between subsystems are presented. The use of such a system will generate fewer organizational procedures, a more efficient internal communication, some improvements in the relationships with the outer environment and working conditions.*

Key words: *implementation, system, slaughtering, standards, team*

INTRODUCTION

The integrated management represents the advance merge process of resources and activities of planning, organizing, managing and controlling in order to achieve the organizational objectives.

Before implementing of an integrated management system in an organization is important:

- to define the interest areas which are intended to be integrated
- to select the reference standards for each area
- to identify the requirements and the fields of application for each chosen standard;

- to complete a preliminary analysis for the implementation
- to implement the integrated system;
- to monitor the implementation and its effects;
- audit and certification of the integrated system.

Before a firm or company choose the type of environmental management system or occupational health on which to adopt, it should determine if it has, indeed, need it. To determine these reasons, the company in question should affirmatively respond at least two of the following questions: Is the organization well-disposed to comply with the laws and environmental and regulations and/or with the occupational health? There are search for ways to improve the environmental performance and/or working conditions for the employees? Is the status of environmental issues or labor conditions of the organization apt to cause a significant legal liability? Is the lack of time or other resources, one that prevents the organization to comply effectively the environmental obligations environmental and those related to the occupational hazards?

MATERIALS AND METHODS

The authors of this paper have completed more phases. In the first phase, it has been required a theoretical and bibliographical documentation concerning the management system and how can it be integrated into a processing unit. Then, it has been defined the issue and formulation of the main hypotheses in order to constitute an explanatory and convincing model, inducing the importance and activity of the researched subject. The final phase has been drawn up and completed by the collected information. The drafting of this paper was made in laboratory, based on the notes from the ground, the existing material and consulted bibliography.

RESULTS AND DISCUSSIONS

The integrated management system means that several management systems are brought together in a common structure in order to simplify the

documentation, to facilitate auditing, the certification and to channel their synergistic effects.

The integrated systems are based on two fundamental premises:

- not the standards, but the customers, products and processes stay in the center of organization trade
- management systems are used to optimize planning, monitoring and analysis of managerial processes.

The concept on integrated management of the organization indicates that, to achieve the organization objectives, it is required a comprehensive management and administration activity so, it is necessary to reach the so called art of leading. It should be noted that this system (like any other) has both advantages and dangers.

Among the most important advantages, we note: new markets and customers; increase compliance; increased operational control; access to capital more easily; integrated responsibility for products and service quality, environmental protection, occupational health; increased morale of employees; a good system of document control; demonstrated commitment to protect the environment and to protect employees, etc.

The greatest dangers that can interfere in such an activity are related both inside the firm (the change is difficult, it is hardly to involve the managers, the time of managers and employees, labor's internal costs represent the greatest part of resources spent by the majority of organizations for EMS) and its external environment (possible additional expenses with: advisory assistance from the outside, staff training by persons/organizations from the outside, the auditors, the certification)

The way in which the integrated system can be implemented differs from one enterprise to another. The characteristics of different organizations such as the type of company, size, nature and complexity of its activities, products and services made, determines a certain structure of the implemented management system.

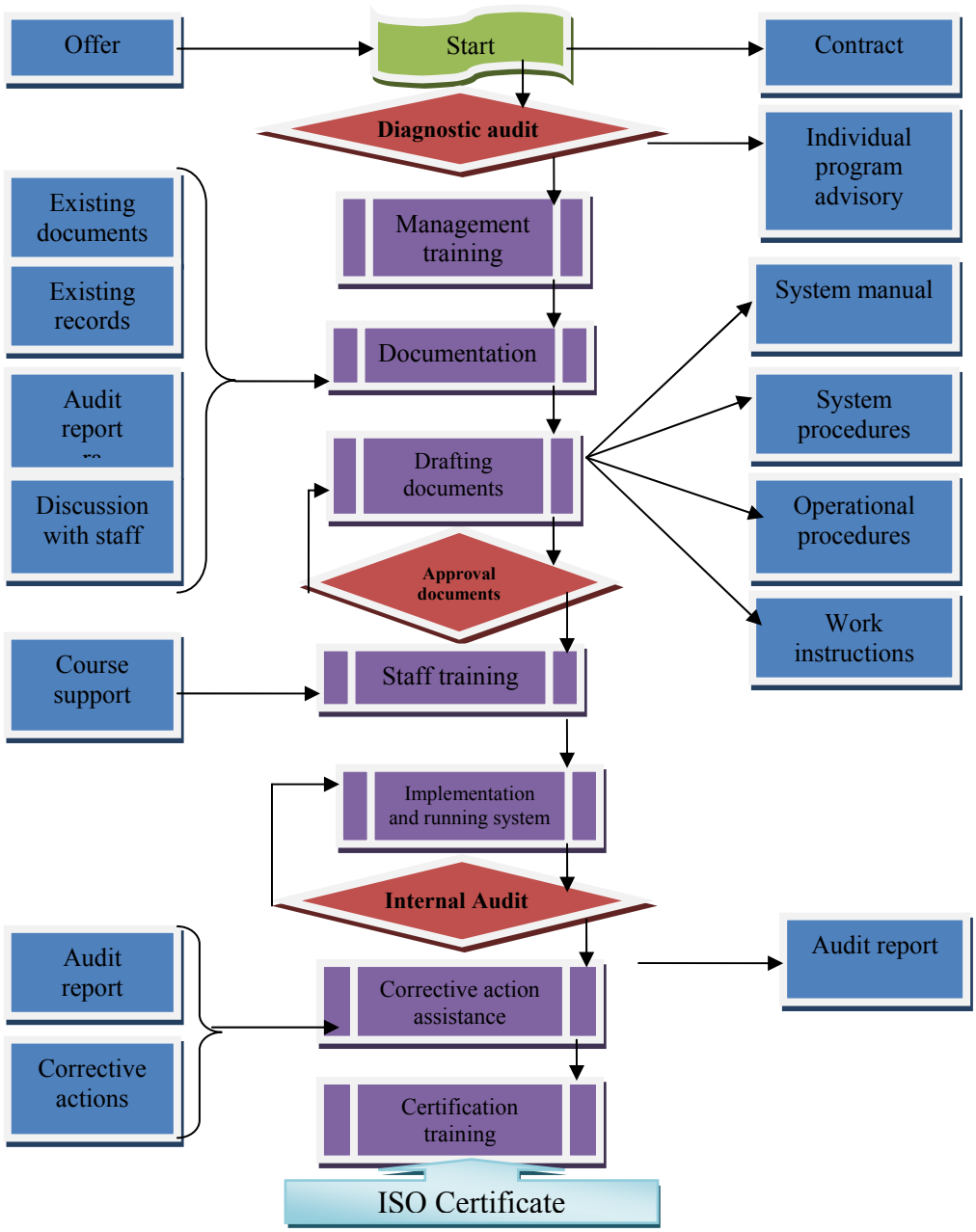


Figure 1. Schedule of integrated management system implementation

If for the implementation, for each area, we have one specific standard, for the systems audits (internal and external), we have only one reference standard SR EN ISO 19011:2003. It is intended, in the future, to be merged all the standards into one in order to simplify the operations and procedures. The implementation team should include in the preliminary analysis the entire requirements specific to each standard. For example, for ISO 14001:2005, the obligation is required to identify the environmental aspects.

Table 1. Approaches to environmental management system requirements

Current number	Requirements (according to ISO 14001:2005)	Exist	Partially	Don't exist
1.	Environmental Policy			X
2.	Environmental aspects	X		
3.	Legal requirements or otherwise		X	
4.	Objectives and targets		X	
5.	Environmental management program		X	
6. – 17.	...			

The preliminary analysis of process – meat slaughtering. Usually, the slaughterhouses work in intensely populated industrial areas, characterized as open systems, based on specific technologies, which requires different raw materials and in large quantities. As a result of raw materials processing activity, large quantities of waste and a relatively large variety of pollutants arise. In figure 2, the components of a slaughtering system are systematically presented as well as the interaction (relationships) between subsystems. In implementing of this approach, we started from the of the technological flow block diagram, analyzing first of all the process, in terms of manufactured products quality and then, in terms of environment and operator.

To determine the interaction human - machine - environment, there will be presented in the next table an extract from the analysis made in a slaughtering unit starting from the raw materials, equipments, microclimate elements, which have major implications for this analysis. To obtain pig carcasses, it is required the browse of several well-defined activities which are grouped by activity sectors.

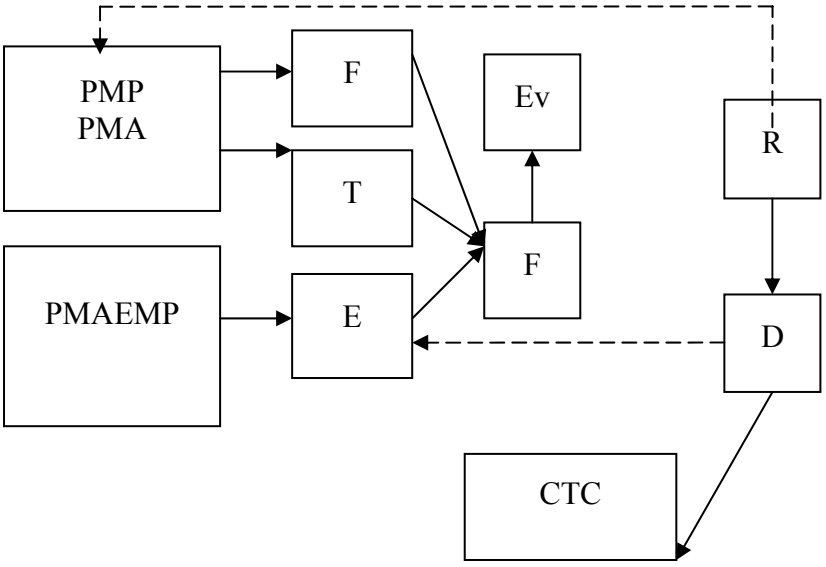


Figure 2. The components of a slaughtering system and links between subsystems

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Table 2.

Extract from the results of slaughtering department analysis

No. crt.	Analyzed sector	Raw materials /materials / obtained products	Equipment and existing facilities in the sector	Microclimate
1.	Preparing auxiliary materials for subsequent operations [PMP-	Carcasses, salt, water	Conveyors, stunning and stabbing lines	Changing temperatures Relatively low light Noise and vibration Specific odors

	PMA]			
2.	Brushing, singeing, polishing	Meat	Conveyors	High temperatures Wet environment Noise and vibration Specific odors Possible gas
3.	Washing, gutting	Meat, water	Washing vats, knives	Relatively low temperatures Wet environment Noise, Specific odors
4.	Final finishing	Water, washing substances	Washing vats	Low temperatures Wet environment Specific odors, Noise Chemical substances
5.	Cooling, storage	Cold air, ice	Coolers, cold rooms	Low temperatures Wet environment Vibrations

In the table 3 it is presented an extract from the results of the conducted analysis to identify the interactions for PMA-PMP sector in order to establish the workplace risks, according to the requirements OH SAS 18001:2005

Table 3. Analysis model to identify interactions

Analysed sector	Interactions			
	Human - machine	Machine - human	Machine - environment	Environment - human
[PMP] [PMA]	Surveillance of equipments, Raw materials handling Repair of installations	Vibrations Noise Cold surfaces Hot surfaces	Vibrations Noise Possible toxic gas	Warmth / cold Noise, vibration Possible gas High airflow

CONCLUSIONS

By using such an approach we obtain clear information on processes, products and services characteristics and their impact on humans and environment. It can be clearly identified the pollution generating phases, the nature of pollution and the areas where emergency situations can appear etc.

Implementing an integrated management system will generate fewer procedures within the organization and an easier integration of the problems in order to be solved; a better and more efficient internal

communication; an easier and integrated approach to environmental and occupational health legislative issues; a working conditions improvement, with positive impact on the human factor and on the environment, in general. The existence of an integrated management system within the organization can improve its image and its relations with the external environment (community, NGOs, control authorities, etc.). Implementing an integrated system can be an expensive process, especially for SMEs and for the starting phase and the payback time is generally 14 months, in certain cases is much shorter.

The activity related to both the implementation and activity in an integrated system is a cyclical process, being a useful tool for the companies to manage, measure and improve all operations.

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