

Systems of Environmental Management

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Abstract

The advantages of adopting a system of environmental management imply that through its implementation a perfect monitoring of the environmental legislation can be achieved, having a higher juridical certainty and supplying proofs of following the laws and regulations in force.

The most important advantages of an environmental system are: an appropriate care for the clients, responsibility and diligence in managing environmental issues; saving raw materials and energy; the effect of the environmental certification which does not necessarily lead to a growth in sales but which contributes anyway to the improvement of the image.

Therefore the aim of the EMAS rule is promoting the continuous improvement of the environmental performances through:

- *development and implementation of the environmental management system,*
 - *evaluation of the environmental performances through audit,*
 - *giving to the customers the information related to the environmental performances.*
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Keywords: Environment, Environmental legislation, System of Environmental Management

JEL Classification: A11, A19, G02

1. Environmental management

Environmental management is the management of those activities in a company which can have a result upon the environment. Any activity has or can have consumption of natural resources (water, energy, non-regenerative raw materials), emissions of pollutants (solid, liquid, aerated), waste production.

The objective is to keep the natural resources, to limit pollution emissions and the risks for the environment as well as to guarantee work safety. These direct or indirect interactions are present during all the stages of creating a product or a service, especially during the production process and thus it is necessary to take into account the extraction stage, the processing stage, the transport of raw materials, the production process, the distribution of products and the end life of a product.

In reality the environment is devoided of its own resources and it receives in exchange more or less pollutant substances.

2. The elements of the environmental system

The system of environmental management is that part of the global management system which includes the organizational structure, the planning activities, the responsibilities, the practices, the procedures, the processes and the resources necessary for development, implementation,

achievement, evaluation and sustention of the environment policy. These actions depend on each other in order to reach a clear goal: environmental protection. The system of environmental management needs ongoing planning in order to have, to revise and to improve the performance results in a firm (Berceanu, 2006; Berceanu, 2008). This helps to apply the environmental management in any kind of organization. This system aims to continuously improve the environmental performances of the organization.

Among the stages of applying the environmental management are the following: the initial analysis of the environment and the inventory of those environmental aspects associated with the activity of the company, the planning of the management system, the action program which is to be achieved in order to reach the specific objectives, the training and the awakening of the staff, the implementation of the system, the inventory of the laws in force, the internal control of the audit system, the internal and external communication, the independent checkout (Pisoi, Traistaru & Mandruleanu, 2005).

3. The design standards of environmental systems

The systems of environmental management can be designed using two different complementary standards: the ISO 14001 international standard and

the CE Regulation 1221/2009 (which replaces the CE 761/2001 Regulation and the 2001/681/CE and 2006/193/CE Decisions), known as EMAS, acronym for environment and audit management.

The ISO 14000 Certification derives from a previous norm, BS 7750 “Specifications for the Environmental Management”, which dates back to 1992 and which had a certain success worldwide and which is still used by some companies. EMAS Regulation entered into force in the member states in April 1995 (Reg. 1836/93)/ At the end of 1998 it started to be revised and this led to the modification of the text till the EMAS regulation was passed in March 2001 (Reg. 761/2001), currently Regulation 1221/2009.

A society can voluntarily:

- get ISO 14001 certification;
- get registered according to EMAS Regulation;
- do both of the above at the same time or one at a time.

ISO certification 14001 is an international standard and it is thus accepted almost everywhere but consumers and public authorities are not always informed and are not aware of what it means to get ISO 14001 certification.

EMAS, on the other hand, is an European regulation so that the validity domain is much more limited but it is far more advantageous in terms of image except for the ones who have businesses outside Europe. EMAS regulation requires a higher

involvement in the development of the environmental system, regarding the following: legal compliance, internal and external communication, environmental performance, employees involvement, the environmental statement (Măcriș, 2013; Vlăduțescu, 2012b).

The environmental statement is the main difference between EMAS regulation and ISO 14001. The environmental statement is in fact the tool through which the organizations which adhere to the Regulation spread information regarding the environmental aspects and the environmental performances, while according to ISO 14001 standard it is enough the fact that the organization places at the disposal of its clients its own environmental policy, leaving to individual organizations the choice of the channels of communication with the outside world on the topic of environment (Vlăduțescu, 2013b; Vlăduțescu, 2013c; Vlăduțescu, 2013d).

Through EMAS Regulation the European Union motivated the changing process of the relations between public authorities and organizations based on the «command and control» principle. There has been a rapid growth in the expansion of the culture and the actions focussed on preventing the deterioration of the environment, in contrast with the measures taken to remediate the environmental damages (Iacob & Cepoiu, 2012; Iacob & Gheorghe, 2012).

This fact requires innovation from organizations, not only from a technological point of view but also in terms of management (Pârvu, 2001; Pârvu, 2002). According to EMAS, the organizations which want to have continuity in managing the compatibility between the environment and their own activities have to subject their environmental policy and the System of the Environmental Management to an evaluation done by environmental accredited assessors and they have to publish an Environmental Declaration. EMAS Regulation imposes to all organizations to adopt an active approach in the environmental field in order to take all the initiatives which comply with environmental protection as the environment is considered a common asset which belongs to the whole community (Iacob, 2008; Smarandache & Vlăduțescu, 2012).

Therefore, organizations are responsible for environmental management and this imposes as well the implementation of policies, programs and efficient environmental management systems.

Uses of Environmental Management System

1. Economic reasons: through rationing and saving raw materials, water, energy and recycling costs can be reduced and new saving possibilities can be identified.

2. The relationship with the authorities: in the near future the state will reward voluntary work in the field of environmental protection and it will

offer administrative advantages to firms which are active in this way. The Environmental Management System will be helpful for granting loans and will make the access to resources easier.

3. In the future more and more institutions and big firms will require from their suppliers to prove the methods used to protect the environment. In order to stay competitive they have to obey these rules (Vlăduțescu, 2012a; Vlăduțescu, 2013a).

4. New market segments: the number of eco-friendly consumers is growing more and more. The « green » segment of the market is thus getting more and more consistent.

5. The value of the firm on the marketplace: in case of merging, purchasing or selling, a functional environmental management system rises the value of the firm.

6. The modernization of management: an environmental management system just as the other management systems will lead to an efficient control of the important and current data of the firm.

7. The quality of services and products: environmental management and environmental protection are important factors for quality management. They complete each other and become more and more an integral part of the requirements imposed by the clients.

8. Innovation: the measures taken by the firm, the initiatives which are due to improve the effect upon the environment lead to reactions, to

new behaviors (Dima & Vlăduțescu, 2013a; Dima & Vlăduțescu, 2013b).

9. The world of financial institutions and of insurance companies: an environmental management system helps to acquire some better banking and insurance services. In case of an environmental accident a firm which can prove that it had a good policy of preventing accidents of this kind will be evaluated to its benefit (Vlăduțescu, 2004; Vlăduțescu, 2006a; Vlăduțescu, 2009).

10. Motivation of employees: an environmental management system has a stimulative and positive effect on employees who can identify themselves easier with an employer who is well-known for his/her eco-conscious methods (Kotler, 2011; Nowicka-Scowron, Dima & Vlăduțescu, 2012).

11. Personal health and public health: having a responsible attitude towards the products and the dangerous production processes leads to the improvement of the working conditions in a firm as well as the improvement of the environment (Dima & Vlăduțescu, 2012c; Dima & Vlăduțescu, 2012d).

12. Life style: the environmental management system helps to have a more harmonious relationship with the environment. It makes it easier to avoid conflict situations, favours a pro-active attitude and helps to create a transparent communication (Copeland & Weston, 1992; Van Horne, 1998; Brealey, Myers & Marcus, 2007).

13. Children and permanent development: in order for the economic activity not to be focussed only on profit but to help to preserve and improve life quality for future generations, a more responsible attitude to using natural resources and pollutant materials is needed.

In order to obtain an EMAS registration the organization must respect the following conditions:

a) to elaborate at least an environmental analysis for its activities, products and services and on the basis of the obtained results, to implement an environmental management system which has to correspond to all requirements (especially to respect the relevant legislation in the environmental field) (Dima & Vlăduțescu, 2012b; Dima & Vlăduțescu, 2013b).

b) to require at least one environmental audit having as its main objective the evaluation of the environmental performance of the organization (Voicu, 2013; Grabara & Voicu, 2013);

c) to prepare an environmental report which has to include:

- the results obtained by the organization in relation to the established environmental objectives and targets;
- the continuous improvement requirements towards the environmental performance and to take into consideration the informing necessities of the interested parts (Vlăduțescu & Ciupercă, 2013);

d) to make sure that:

- the environmental analysis, the management system, the audit procedure and the environmental report are evaluated in order to check the achievement of the requirements of the current law;
- the environmental report is validated by an environmental assessor;

e) to hand in the environmental validated report to the environmental national agency

In order to maintain the EMAS registration the organization should follow the next conditions:

a) to have an environmental management system and an audit program regarding the frequency of the evaluations.

b) to hand in annually to the national agency the necessary validated updates of the environmental report and to make them public.

The documents needed for the EMAS registration of an organization are:

- a) the environmental report;
- b) the filled-in application form;
- c) the receipt for having paid the registration fee.

There are necessary 19 stages in order to apply an environmental management and an efficient method: P = the programming of the environmental management system, C = design and achievement of the program, C = control and evaluation of the environmental performance, A =

action for continuous improvement and last but not least communication and checking.

The 19 stages for obtaining EMAS:

P (programming) contains 5 stages (1-5): defining the environmental policy, identifying the significant impacts upon the environment, legal obligations, defining the objectives and the aims which are to be reached, defining the environmental management program.

Cr (design) includes 7 stages (6-12): structure and responsibility, building, knowledge and competence, communication, documentation of the environmental management system, control of the documentation, strategic control, planning emergencies.

Co (control) contains 4 stages (13-16): monitoring and measuring, prevention and corrective actions, registrations, internal audit of the environmental management system.

A (action) contains 3 stages (17-19): revising management, public communication, checking, approval and registration.

4. Conclusion

The study of firms which have been ISO 14000 certificated, underlines the fact that 96% of the batch have made themselves greatly known abroad as a result of the certification. The effect of

rationing the procedures and of the improvement of the firms, especially regarding the activities directly related to the environment are an advantage of the pragmatic approach of the environmental management systems.

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