NECESSITY TO ESTABLISH LABOR SAFETY AND HEALTH SYSTEMS WITHIN S.C. ARPECHIM

Marian POPESCU\textsuperscript{1}, Emilia POPESCU\textsuperscript{2},

\textsuperscript{1}Faculty of Economics, University of Piteşti, marian.popescu@upit.ro
\textsuperscript{2}Faculty of Economics, University of Piteşti, emilia.popescu@yahoo.com

Abstract: The safety and health policy must be officially declared in order to be implemented within the organization. The basic management model adopted is transposed within the strategic action plan in appropriate strategies, on long and medium term, referring to the organization operation, retail market and conduct. Only a conduct aligned to the labour safety and health requirements, acknowledging and accepting the same by volition may lead to an effective implementation of the labour safety and health management system. At S.C. ARPECHIM, labour safety and health management must be prepared as a management system aiming for the ongoing cooperation between all employees in order to improve labour safety and health, to reduce at maximum the illness costs and labour accidents.

Key words: health safety, health management system, health strategies and policies
JEL Code: I10, M12, K32

1. INTRODUCTION

The LSHM system may be defined as an assembly of decisional, organizational, information and motivation, etc. elements within the organization by means of which the assembly of processes and LSHM relationships are coordinated in order to achieve the desired level of labor safety and health.

At S.C. Arpechim the general management system involves three action plans:
- Normative plan, within which the following are set: administrative manner for the organization constitution, its basic principles, policy, objective, organizational culture to be implemented;
- Strategic plan, by means of which the objective set within the normative plan are transposed in long and medium term strategies and action plans;
- Operative plan, within which the strategies and plans are implemented and actual actions are realized, necessary to achieve the objectives proposed.

If we consider the organizational elements providing for the operation of the organization: the structures and basic organization, basic activities, management conduct and the conduct or all remaining employees and if we relate the contents of the three plans to the same, we should obtain nine fields of action afferent to the management system, table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Basic structures and organization</th>
<th>Basic activities</th>
<th>Conduct of all employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMATIVE PLAN</td>
<td>Organization constitution</td>
<td>Basic policy</td>
<td>Organizational culture</td>
</tr>
<tr>
<td>STRATEGIC PLAN</td>
<td>- structure and organization</td>
<td>- production and marketing strategies</td>
<td>- public relations and environmental impact</td>
</tr>
</tbody>
</table>
The organization constitution aims to select, depending on the field of activity proposed, the most appropriate legal form of constitution for the organization and the actual registration of the same to competent authorities, the establishment of headquarters, the organization statute and operation, as well as to delimitate the employees’ rights and obligations by means of the collective labor agreement.

The basic policy is defined as basic principles formulating in details the economic, operational, social and general interests, as well as the values aimed by the organization.

Organizational culture materializes in the top management conduct, the conduct of other management persons, as well as the conduct of all remaining employees.

The top management must aim to protect the manpower, regardless of the legal requirements, so as to be considered as basic principle in the organization’s activity and an objective as important as the profit and to monitor the implementation of such value within the strategic and business programs.

Within S.C. Arpechim, such policy is a decisive prior condition for a LSHM system [1] transforming the legal obligation to realize the labor safety and health in a voluntary action, a willing assumption of the responsibility for the employees’ labor conditions.

Organizational culture, is rightly focused, forms the attitude of manpower both in terms of the organization interests and macro-social interests.

Figure 1 shows the action fields corresponding to the normative plan.

**Figure 1. Fields of action according to normative plan**
The safety and health policy must be officially declared in order to be implemented within the organization. Although it requires high ethical values, such a policy is not justified only by humanitarian reasons. It is also justified by economic and financial factors, etc., because, by reducing or eliminating professional illnesses and accidents, as well as other expenses involved by inappropriate labor conditions, the profit may be increased and thus exceeding the investment in labor safety. Only on grounds of such a policy may a LSHM system be created, based on the "own care and responsibility" principle.

2. RESEARCH METHODOLOGY

In order to become viable, the actions afferent to each filed of action within the normative plan for a LSHM system must be detailed in elementary actions, according to table 2.

<table>
<thead>
<tr>
<th>Fields of normative action plan for a LSHM system</th>
<th>Elementary normative actions within the LSHM system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of labor safety and health system</td>
<td>Establishment of organizational structures</td>
</tr>
<tr>
<td></td>
<td>Resource provisions</td>
</tr>
<tr>
<td></td>
<td>Legal requirements</td>
</tr>
<tr>
<td></td>
<td>Other requirements</td>
</tr>
<tr>
<td>Labor safety and health policy</td>
<td>Policy and strategy in the matter of labor safety and health</td>
</tr>
<tr>
<td>Labor safety and health organizational culture</td>
<td></td>
</tr>
</tbody>
</table>

The basic management model adopted must be transposed within the strategic action plan in appropriate strategies, on long and medium term, referring to the operation of the organization, retail market and conduct. The strategies must aim towards optimum development, according to the basic policy, organization structure and various management subsystems implemented.

Similarly to the production and marketing strategies, for the LSHM system within S.C. Arpechim strategies providing for the achievement of specific objectives must be implemented:

- Procurement of technical equipments, raw materials and safe personal protection equipments;
- Observance of safety and health requirements in the case of buildings, internal transport and hazardous substances storage;
- Preparation of labor accident and professional illness prevention programs;
- Preparation of medical programs regarding professional illness prevention;
- “Safe” product planning and execution.

The strategic plan must also aim towards human resources, both in terms of quantity and in terms of quality.

Figure 2 presents the fields of the strategic action plan in case of the LSHM system.
As in the case of normative plan, the fields of the strategic plan must also be detailed in elementary strategies outlining the directions for punctual sub-fields, as in Table 3.

### Table 3: Basic values in relation to labor safety and health established by the organization within the normative action plan

<table>
<thead>
<tr>
<th>Organization</th>
<th>Resources</th>
<th>Products / Services</th>
<th>Basic relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies for the procurement of equipments, raw materials, materials and safe personal protection equipments</td>
<td>Strategies to use raw materials, materials, semi-fabricated materials with minimum risks. Planning of processes, procedures, safe operations to achieve the object of activity. Long and medium term planning in order to observe the safety requirements in relation to new buildings, extensions, internal transport systems, hazardous material storage, etc.</td>
<td>Strategies to involve suppliers in the new approach related to labor safety and health</td>
<td>Strategies to use raw materials, materials, semi-fabricated materials with minimum risks. Planning of processes, procedures, safe operations to achieve the object of activity. Long and medium term planning in order to observe the safety requirements in relation to new buildings, extensions, internal transport systems, hazardous material storage, etc.</td>
</tr>
</tbody>
</table>

#### Figure 2: Fields of the strategic action plan in case of the LSHM system

- **Planning and development strategies for the main organizational structures within the LSHM system as base for**
  - Strategies to develop training, formation and perfection systems providing, for all employees, the adoption of a safe conduct in terms of LSH, conscious and willing acknowledgement of safety requirement observance, involvement in solving the issues related to the prevention of professional accidents and illnesses

- **Action strategies to realize labor safety and health**
  - Strategies to use raw materials, materials, semi-fabricated materials with minimum risks. Planning of processes, procedures, safe operations to achieve the object of activity. Long and medium term planning in order to observe the safety requirements in relation to new buildings, extensions, internal transport systems, hazardous material storage, etc.

- **Strategies for the procurement of equipments, raw materials, materials and safe personal protection equipments**
  - Strategies to involve suppliers in the new approach related to labor safety and health

- **Strategies to include programs for the prevention of labor accidents and professional illnesses**

- **Strategies to use raw materials, materials, semi-fabricated materials with minimum risks. Planning of processes, procedures, safe operations to achieve the object of activity. Long and medium term planning in order to observe the safety requirements in relation to new buildings, extensions, internal transport systems, hazardous material storage, etc.**

### Complex strategy of organization within the matter of labor safety and health

- **Operative action plan to achieve labor safety and health**

---

Marian POPESCU, Emilia POPESCU
The objective of the operative plan consists, in the case of a general management system, of all the activity planning, control and execution – from research and development to the execution of the finite product / service – under economic efficiency conditions.

When defining the actions, procedures, etc., providing for the achievement of such purpose, it must be considered that the short time objectives, respectively the immediate profit, must not impair the organization’s long and medium term operation.

The research resulted in that the operative plan must include:
- Process, product and service planning;
- Investment control;
- Economic efficiency performance and control.

Also, it must be considered that the activities specified within S.C. Arpechim cannot be successfully realized if an appropriate staff conduct is not provided for, as outlined in the training-perfection strategy for all employees.

For this, the operative plan must also provide for appropriate actions to obtain professional performance and desired collaboration between employees Figure 3.
For the results in the operative action plan to be those aimed, actual actions must be established as well – regular training, detailed content of the same, usable promoting forms – by means of which the appropriate conduct is provided for the management and manpower in general.

Only a conduct aligned to the labor safety and health requirements, acknowledging and accepting the same by volition, may lead to an effective implementation of the labor safety and health management system.

The elementary actions within the operational plan of SLSHM are specified in Table 4.

### Table 4

<table>
<thead>
<tr>
<th>Fields of operative actions within the LSHM system</th>
<th>Elementary operative actions within the LSHM system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring, control and assessment systems</td>
<td>O1 Labor safety and health committees</td>
</tr>
<tr>
<td>Own labor safety instructions</td>
<td>O2 Identification and description of jobs, main stages and processes for safety</td>
</tr>
<tr>
<td>Labor instructions according to the safety requires</td>
<td>O3 Identification and assessment of risks</td>
</tr>
<tr>
<td></td>
<td>O4 Revision and surveillance procedures</td>
</tr>
<tr>
<td></td>
<td>O5 Evidence control</td>
</tr>
<tr>
<td></td>
<td>O6 Employees’ rights</td>
</tr>
<tr>
<td></td>
<td>O7 Employees’ obligations</td>
</tr>
<tr>
<td></td>
<td>O8 Employees competence</td>
</tr>
<tr>
<td>Planning and action according to the labor safety and health requirements</td>
<td>O9 External and internal communications</td>
</tr>
<tr>
<td></td>
<td>O10 Formalization and documentation</td>
</tr>
<tr>
<td></td>
<td>O11 Risk elimination and mitigation</td>
</tr>
<tr>
<td></td>
<td>O12 Preventive medicine</td>
</tr>
<tr>
<td></td>
<td>O13 Corrective actions</td>
</tr>
<tr>
<td>Acknowledgement, by all employees, of the importance of labor safety and health and their implication in execution.</td>
<td>O14 Measures in case of damage and emergencies</td>
</tr>
<tr>
<td></td>
<td>O15 Procurement</td>
</tr>
<tr>
<td></td>
<td>O16 LSHM audits</td>
</tr>
<tr>
<td></td>
<td>O17 Participation and common interests</td>
</tr>
<tr>
<td></td>
<td>O18 Action programs</td>
</tr>
<tr>
<td></td>
<td>O19 Training</td>
</tr>
</tbody>
</table>

The 19 elementary actions detailed for the fields of action within the LSHM system are subsumed in ten system elements, table 5.

### Table 5

<table>
<thead>
<tr>
<th>LSHM system elements</th>
<th>Normative (N), strategic (S) and operative (O) action elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Duties and responsibilities of top management</td>
<td>1.1. LSHM policy and strategy (N5)</td>
</tr>
<tr>
<td></td>
<td>1.2. Establishment of organizational structures (N1)</td>
</tr>
<tr>
<td></td>
<td>1.3. Assessment of LSHM system (S4)</td>
</tr>
<tr>
<td></td>
<td>1.4. External and internal communications (O9)</td>
</tr>
<tr>
<td></td>
<td>1.5. Resource provision (N2)</td>
</tr>
<tr>
<td>2. Management system</td>
<td>2.1. Structure of management system (S1)</td>
</tr>
<tr>
<td></td>
<td>2.2. Labor safety and health committees (O1)</td>
</tr>
<tr>
<td></td>
<td>2.3. Participation and common interests(O17)</td>
</tr>
<tr>
<td></td>
<td>2.4. Integration of management systems (S2)</td>
</tr>
<tr>
<td></td>
<td>2.5. Operation of management system (S3)</td>
</tr>
<tr>
<td></td>
<td>2.6. Formalization and documentation(O10)</td>
</tr>
<tr>
<td>3. Legal and other requirements</td>
<td>3.1. Legal requirements (N3)</td>
</tr>
<tr>
<td></td>
<td>3.2. Other requirements (N4)</td>
</tr>
<tr>
<td>4. Prevention</td>
<td>4.1. Identification and description of jobs, main stages and processes for safety(O2)</td>
</tr>
</tbody>
</table>
The functional relationships between the elements of normative (N), strategic (S) and operative (O) actions and the elements in the LSHM system. These elements were defined and structured so as to provide for the synergy compatibility with the elements in other management systems, such as the quality management system (ISO 9000) or environmental management system (ISO 14000). These include, in a first instance, five generic elements, afferent to any management system: top management duties and responsibilities, management system, evidence control, personnel and audit. The other are elements specific to risk control, legal obligations and different in nature, prevention, analysis, monitoring and corrective actions, measures in case of damage and emergencies, procurement.

### 3. CASE STUDY REGARDING THE ACTIONS REALIZED WITHIN A LABOR SAFETY AND HEALTH MANAGEMENT SYSTEM AT S.C. ARPECHIM.

The legal obligation of S.C. Arpechim is to realize the labour safety and health for all employees, to provide for the development of labour processes so as to avoid the occurrence of professional accidents or illnesses. The preventive experience demonstrated that this is not possible. Even if all possible measures were taken, the installations become old, technologies use hazardous materials in their nature and therefore there shall always exist the possibility of an incident, damage or an action generating accidents or illnesses occurring.

The human factor cannot be definitively excluded from the process even if automation and robots are used. The Master Directive 89/391/CEE outlines the general guidelines for the entire regulating activity in the matter and basic preventive are specified:

- Avoidance of accident risks and illnesses;
- Minimization of risks that cannot be avoided.

Under such conditions, we can rephrase the objective of labour safety and health management as: reaching the maximum possible safety under the actual conditions in the economic agent’s activity.

Maximum safety is the targeted result of an assembly of principles and methods gathered in a global strategy enforced within S.C. Arpechim in order to provide for the employees’ safety during labour.

The maximum safety strategy considers all activities within the organization and all employees, regardless of the hierarchic position of each employee figure 4 and figure 5.

All employees must possess the same vision and must have the same objective for the ongoing improvement of labour conditions.
The maximum safety requires the active participation of all employees for the prevention and elimination of risks. The labour protection management, within the strategy and relationships to the employees must not forget the note that, within an organization, 8-12% of the staff are the locomotives, 20-30% the tender, 50-70% total mass of cars, 2-10% the brakes and 1% the stars.

The enforcement at the organization level of the maximum safety management principles might have a series of favourable effects Figure 6.

**Figure 4. Maximum safety – an objective necessity**

**Figure 5. Coordinates defining the manager’s role within the modern organization**

- New strategies
- New structures
- New communication systems
- New responsibilities
- New roles, shareholders, managers, partners
- Human resources economic

**GREAT CHALLENGES**

**STAKE**

- Anticipation
- Response rapidity
- Innovation
- Coherence and cohesion

**RESPONSIBILITIES**

**PARADOX DOMINATION**

- Preparation of a new vision also indicating development directions
- Management focused on examples Exemplary performance of duties assigned
- Transparent management
- Authority delegation
- Ongoing communication with the operational staff
- Appreciation of operational staff work
- Individual assessment depending on their contribution for innovation
- Creation of an emergency state within the entire organization in relation to the speed of changes

**Main leader of the new manager role:**

- New management PRACTICES
- Management decentralization by DELEGATION
- Generalization of PASSION FOR CHANGE

**TARGET**

- New strategies
- New structures
- New communication systems
- New responsibilities
- New roles, shareholders, managers, partners
- Human resources economic

- Anticipation
- Response rapidity
- Innovation
- Coherence and cohesion

- Preparation of a new vision also indicating development directions
- Management focused on examples Exemplary performance of duties assigned
- Transparent management
- Authority delegation
- Ongoing communication with the operational staff
- Appreciation of operational staff work
- Individual assessment depending on their contribution for innovation
- Creation of an emergency state within the entire organization in relation to the speed of changes
The purpose of adopting the maximum safety strategy in Figure 7 is to eliminate professional accidents and illnesses and to create comfortable labour conditions Figure 8.

<table>
<thead>
<tr>
<th>TARGET</th>
<th>The 6 advantages of maximum security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>DIMINISH</td>
</tr>
<tr>
<td>Organization</td>
<td>DIMINISH</td>
</tr>
<tr>
<td>Management</td>
<td>DIMINISH</td>
</tr>
</tbody>
</table>

Figure 8. Favourable effects estimated to reach maximum safety

The mandatory stages to complete until achieving the scope are presented in table 6, establishing the matrix for the actions to achieve the maximum safety objectives.
<table>
<thead>
<tr>
<th>Directions Stages</th>
<th>WANTING</th>
<th>THE SYSTEM</th>
<th>ASSOCIATING EMPLOYEES</th>
<th>ASSESSING</th>
<th>RECOMPENSATING PENALIZING</th>
<th>STIMULATING EVOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KNOWING THE EXISTING SITUATION</strong></td>
<td>Motivation? (external / internal)</td>
<td>Which elements in the service are costly? What are the deviations from the reference norms?</td>
<td>Is there employee sensitivity in terms of safety?</td>
<td>What is non-safety value?</td>
<td>How does safety or non-safety influence remuneration or promotion?</td>
<td>- what actions were realized? - what results were obtained?</td>
</tr>
<tr>
<td><strong>ESTABLISHING A POLICY</strong></td>
<td>What policy Is safety aimed to? For what purpose? For what results?</td>
<td>What reference elements were selected? What is the reference norm?</td>
<td>What employees are associated with the action? Their hierarchical role</td>
<td>What is the policy cost? How do we measure results?</td>
<td>What rewards or sanctions are provided?</td>
<td>- action planning? - Responsible person? - piloting?</td>
</tr>
<tr>
<td><strong>DEFINING STRATEGY</strong></td>
<td>Display goals Commitment Allocation of means</td>
<td>Outlining the system general principles</td>
<td>Forming a leading committee</td>
<td>Selecting safety indicators</td>
<td>Corroborating the indicators with individual or collective rewards</td>
<td>Setting up responsibilities</td>
</tr>
<tr>
<td><strong>ELABORATING</strong></td>
<td>Passion for details Being an example</td>
<td>Elaborating safety system</td>
<td>Teams entrusted with the system document preparation</td>
<td>Creating an assessment system</td>
<td>Appreciating evolution</td>
<td>Using deficiencies to stimulate and print evolution</td>
</tr>
<tr>
<td><strong>PROVIDING VIABILITY</strong></td>
<td>Transferring passion for details</td>
<td>Implementing, validating, improving the system</td>
<td>Render entire personnel sensitive Safety seminars, teams</td>
<td>Internal audits</td>
<td>Creating safety managers</td>
<td>- performing diagnoses - bringing new improvements</td>
</tr>
<tr>
<td><strong>EXPOSING</strong></td>
<td>Disseminate action components</td>
<td>Checking Authorizing</td>
<td>Informing employees on results</td>
<td>Displaying assessment results</td>
<td>Celebrating results</td>
<td>Exposing processes not applied</td>
</tr>
</tbody>
</table>


4. CONCLUSIONS

The principles of implementation are: will, management example, adhesion of entire staff, improvement of safety by means of prevention, assessment of safety level.

Some necessary conditions for implementation might be:
- Strategic decision;
- Cultivation of safety idea for employees;
- Short term investments;
- Real will promoted and management involvement;
- Will to activate the entire staff;
- Staff training and perfection.

The time allocated for implementation varies depending on the level of human resources referred to Figure 9.

The approach of maximum safety within S.C. Arpechim can be seen in Figure 10. The maximum safety implementation stages are the following:

a. Conviction of leading team – the performance of a safety level assessment represents a reason for management implication and is intended to learn about the potential losses that may result from non-safety.

b. Formation of safety structure containing the elements:
   - Safety directive;
   - Safety committees;
   - Working team.

c. Management adhesion – by defining the necessity, scope and advantages involved by realizing maximum safety and its principle, some sensitivity in this direction may be obtained.
d. Management formation mainly aims at the issue of maximum safety and requires that the manager assumes both the general aspects and the policy and strategy specific for the organization.

e. Action launch – starts from the training of the entire staff within the organization, pursuing to achieve a general adhesion.

f. Formation of personnel, requiring information, training, measurement, etc.

g. Implementation of safety seminars.

h. „Simulated” enterprise – simulation of the potential performances within the organization which might be achieved after eliminating the losses generated by the lack of safety.

The policy of S.C. Arpechim in relation to labour safety and health must be a fair policy clarifying the following aspects:

- Safety importance for the organization;
- Persons involved in safety performance;
- Management responsibility for safety;
- The organization’s objectives in the matter of safety.

The policy basic rules are;

- You must be understood by everyone;
- Practical enforcement is made gradually;
- Action must exist at all levels;
- The necessary information system must be provided.

The management for the projects regarding the improvement of labour conditions has the following responsibilities:

- Data collection;
- Assessment of safety level;
- Analysis of non-safety causes;
- Discovery and elimination of non-safety causes.

Counting the safety strategy objectives to introduce actual specifications in the projects for the improvement of labour conditions.

LSM methods and means are defined by scope, principle, methods and means.
Figure 10. Approach in labour safety and health within S.C. Arpechim

REFERENCES

1. Bran P. (coord), *The economic dimension of the environmental impact*, Ed. ASE, București, 2004