

Implementation of integrated QMS at the cereals enterprises in Northern Kazakhstan

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Abstract. Quality of products - is one of the key tools of competition, obtaining and keeping positions at the markets. Quality management is the main part of production process. The task of QM is to check-up of quality of products in the process of production rather than finding out of defected items. Skillful realization of the principles and mechanisms of standardization, metrology, certification and quality management facilitates the process of efficient reformation of economy and integration of Kazakhstan into world community. Solution of these issues moved all developed countries to practically new stage characterized by integrated systems of quality management (IQMS) based on QSM, systems of ecological management (EMS) or system of environmental management (EMS), and professional security and health management systems (PSHMS).

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Introduction

Modern QMS in all industries including agrarian sector must develop and improve themselves with orientation to requirements of international standards ISO 9000, ISO 14000, OHSAS 18001. In this connection it is objectively necessary to analyze and assess international standards applied in the quality management sphere of and develop recommendations for their adaptation and use at agricultural enterprises of Kazakhstan. Use of foreign experience [1-7] will enable to find the most preferable variant of structure combination and use of different kinds of QMS and will form and support the competitive potential of economic entities in agrarian sector and, first of all, in such strategically significant branch for the as production of cereals.

Development of integrated system of management can not be restricted to mechanical combination of requirements from international standards in regard to management (regardless of the concept and principles on which these standards are based and specific character of management type which has already formed in the organization) which can result in their formal realization [8].

Integration of management systems in the sphere of quality (as well as ecology, security and social responsibility) which correspond to the requirements of international standards must be considered as precondition for sustainable development of the organization.

Main part

In Kazakhstan the use (implementation) of international standards in MS sphere are encouraged by some specific measures, they are as follows:

- payment rates for emissions into environment for the enterprises certified in accordance with international standards ISO 14001:2004 will be reduced with reduction coefficient 0,75 (Resolution of the Government of the Republic of Kazakhstan of December 28, 2007 #1314 "About approval of basic and marginal payment rates for emissions into environment");

- tax privileges for enterprises which implemented and certified QMS and EMS, which are prize-winners of the Award of the President of the Republic of Kazakhstan "For achievement in quality sphere" and selling good of their own production, in the part of 50% reduction of the sum of calculated corporate income tax during one tax period (Tax Code of the Republic of Kazakhstan, article 140-9) [9].

- partial compensation by the state of the costs for development of QMS at agricultural materials processing enterprises (Resolution of the Government of the Republic of Kazakhstan #156 of March 14, 2006 "About approval of the Rules of subsidies of the production management systems and agricultural products market"). In 2006 the sum from the budget was 40 million tenge which cover 50% of costs of agricultural materials processing enterprises, in 2007 - 80 million tenge.

In accordance with the Concept of development of MS in the Republic of Kazakhstan up to 2015 in order to provide targeted work on implementation of

MS every enterprises (organization) must build its own concept. This concept must be based on the following:

- steady development can not be provided without high-quality products and services, ecological and industrial safety and social responsibility, without targeted and coordinated work on reduction of man-caused load on environment;

- searching and realization of economically, socially and ecologically balanced solutions;

- solutions which are based on the results of analysis of MS and ecological security of all the structures of the enterprises must guarantee realization of nature-protecting and labour legislature of the Republic of Kazakhstan, take into consideration the requirements of international standards of ISO 9000 и 14000, OHSAS 18001 и SA 8000 series [10].

The concept of IMS at enterprises must provide complex solutions of QM issues and socio-ecological problems taking into consideration the specific features of applied technologies and with due regard to technical development of main production.

IMS concept at enterprises must be based on strict realization of legislative-regulatory and normative- technical requirements in the sphere of economic activity and environment protection:

- 1) on all levels of production-economic activity management;

- 2) at all stages of this activity - in planning, construction, use, realization of liquidation works;

- 3) in all spheres - engineering, production and use, financial-economic.

Development of IMS at enterprises must be realized on the following principles:

- ecological issues must be prioritized;

- use of unified scientific - methodological, metrological and technical approaches in the process of realization of program measures;

- full and timely financing of program measures;

- openness and accessibility of information about intentions of the enterprises in the sphere of ecological security of its production operations;

- strict supervision over realization of program measures.

The enterprises concept must be based on:

- ecological policy principles;

- innovation strategy;

- tariff agreement between employees and directors;

- collective agreement oriented to increase in efficiency of the activity;

- extension of the guarantees, privileges and compensations provided for the employees and administration.

Supervision over the realization of the Concept must be performed with the use of economic and legal methods in accordance with current legislature of the Republic of Kazakhstan [11].

Current coordination in realization of the Concept must be performed by appropriate division of the enterprise. Responsibility for realization of the Concept is laid upon directors who specify the targets, costs for program measures, mechanism and terms of their realization.

Forms and methods of organization of the control over realization of separate items of the Concept will be defined by the enterprises independently.

Financing of program measures in the framework of the Concept of the enterprises must be performed in accordance with the provision about general order of investment programs formation and the system of their financing.

The sources of financing the Concept and the program on its realization must be predominantly internal (own sources of the enterprises - profit, amortization fund and borrowed money:

- investment, conversion, targeted credits of the banks;

- money of ecological funds and NCOs;

- money from abroad, interested in realization of the Concept or its separate measures;

- assignments for reproduction of mineral-resource base;

- any other money.

Realization of program measures can be performed with the use of specially established funds.

The Concept must facilitate increase in number of enterprises introduced IMS in the Republic of Kazakhstan up to 2000 enterprises in 2015.

It is worth mentioning that the foundation for IMS must be system of management in the sphere of social and ethical responsibility because it suggests realization of regulations in regard to ecology, labour protection, safety of products and other related aspects. However, the main focus is on compliance of the management requirements in ISO 9001, ISO 14001, OHSAS 18001 и SA 8000 with the criteria and sub-criteria of TQM (Total Quality Management), while HACCR (Hazard Analysis and Critical Control Points) system is almost completely ignored. Safety of products is necessary part of integrated systems for enterprises producing food products including cereal-producing and processing enterprises

Thus, side by side with main provisions of IMS concept cereal-producing and processing enterprises must be provides with the following:

1. While developing their own concept the enterprises of the industry must base its solutions on:

- constant work must be performed on searching and realization of solutions in the sphere of products' safety;

- solutions made on the base of the analysis of the system's conditions and safety control system of food products of all structures of the enterprises must guarantee realization of laws in the sphere of products' safety of the Republic of Kazakhstan taking into account the requirements of international standards ISO 9000 and HACCP.

-complex solutions of the issues of QM and safety of the products must be made with due regard to applied technologies and technical development of main production;

-strict realization of regulatory and normative-technical requirements to economic activity on all levels of management and all stages of this activity.

2. Development of IMS concept on the base of QMS and HACCP at enterprises must be performed on the following principles:

- ecological issues must be prioritized;

-use of unified scientific - methodological, metrological and technical approaches in the process of realization of program measures;

- full and timely financing of program measures;

-openness and accessibility of information about intentions of the enterprise in the sphere of ecological security of its production operations;

-strict supervision over realization of program measures.

3. The enterprise's Concept must be based on:

-principles of enterprises policy directed to safety of goods;

-innovation strategies of the enterprises

-economic incentives for employees;

-extension of guaranties, privileges and compensations provided for employees and administration;

-enlightenment and communication.

We have explained above that we propose stage-by-stage integration of MS at the enterprises.

The first stage: it is necessary to analyze the QM which exists at the enterprises in order to identify the time and resources necessary for implementation of IQMS in accordance with standards included in it. After assessment of the situation made in such a way the plan of work must be drawn up and responsibility must be distributed. The top-management must understand not only the advantages from it but potential risks and the scope, difficulties and duration of work. It is important to assess the competence of managers and specialists which will implement IMS, identify appropriateness of attraction of external experts, then organize multi-profile working group. Here the measures must be taken directed to

provision of psychological stability of the staff, which are as follows:

- broad explanation of reasons, aims, character, terms and consequences of IMS implementation by the top-management;

-development of clear strategy of IMS, allocation of necessary resources for its realization;

- provision of favourable starting conditions for performance of works (measures), in particular, by formation of control and working bodies able to provide needed speed and continuity for the process of IMS establishment;

- special classes and trainings for the members of control and working bodies;

- constant support of measures by the top-management, demonstration of interest in successful finishing of measures, special attention must be paid to those groups and employees who will resist most fiercely;

- monitoring and regular analysis of works, informing all the staff about its results by means of direct contacts with employees. Realization of these measures suggests realization of such basic principles of management as leadership of director and involvement of employee.

The second stage:

- choose international standards for management used for planning of IMS;

- identify the processes at the enterprises which are covered by IMS;

- identify the order and interaction of identified processes;

- to appoint the directors of the processes, responsible for their efficient management;

- to identify specific requirements of international standards to management, used in IMS which must be realized in every process;

-to set the parameters of monitoring of the processes related to selected international standards;

-define the tools and methods of monitoring, measurements and analysis of the processes;

-form the criteria of efficiency and effectiveness of the processes and IMS in general;

In the process of development of necessary documents it is necessary to form regulatory framework which will provide constant improvement of IMS. Detailed documentation of ISM must provide solution of such tasks as establishment of requirements to realization of the processes, correct understanding of these requirements, reproducibility, monitoring of the processes and assessment of the results.

The 3rd stage: activity of personnel at the enterprise must be organized in accordance with new

requirements and the team of internal auditors must be formed and trained. QMS at the enterprise must be re-organized in accordance with principles of integrated system and IQMS must be put into operation.

The 4th stage: consultants-auditors must submit recommendations on elimination of faults, assess the degree of readiness for certification procedure. In order to do that checking procedures must be established: methods of verification and audit, tests.

The 5th stage: top-management of the company can choose the organization which is authorized for certification audit and can issue a certificate confirming correspondence of IQMS to QMS requirements.

Thus, stage-by-stage introduction of QMS has the following advantages:

- increase in quality of products or services;
- satisfaction of customers' needs;
- increase in loyalty of the consumers leading to positive assessment by the company;
- increase in profit and share participation on the market because of operational respond to market's needs;
- satisfaction of suppliers' requirement;
- quick response to market changes and coordination of actions between organization and the supplier;
- creation of trust of main interested sides in efficiency and effectiveness of the organization;
- use of process and system approaches which are optimal for achieving desired results;
- increase in processes' quality;
- increase in productivity;
- reduction of costs and resources, their optimization and reduction of cycle time at the expense of efficient use of resources;
- expansion of the market;
- growth of competitiveness because of better opportunities of the organization;
- world recognition;
- minimization or even avoidance of unforeseen financial or moral losses in case of force-major;
- improvement of production and financial discipline;
- satisfaction of personnel's needs;
- personnel gets involved in quality management (becomes interested in it);
- better understanding by the personnel of the tasks and aims of the organization, its better motivation and more responsibility for their own results;
- improved interrelation between personnel and top-management;

-comfort psychological climate in the company.

And the last advantages of stage-by-stage implementation of QMS - mechanism for demonstration of responsibility before interested parties, and this is:

- more beneficial insurance rates;
- investment attractiveness of the organization;
- demonstration of financial and production stability;
- high degree of trust from the representatives of supervising bodies and opportunity to reduce the number of inspections;
- full correspondence with requirements of regulations and rules.

Conclusion

Generally speaking, the Concept of implementation of IMS at cereals producing and processing enterprises suggests orientation to their specific characteristics, compliance with described above principles of implementation of this system, and strict correspondence to the order of stages. All this in combination will result in improvement of quality of production and manufactures goods, and competitiveness of the enterprises, and not only in internal market, but on international market as well which is especially important in conditions of accession of Kazakhstan to Customs union, and, what is more important - to WTO.

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