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## Implementation of the quality management system in the enterprise producing bentonite clay

**Abstract.** In the developed countries of the world, the problem of quality improvement occupies a leading place in ensuring the competitiveness of products and services, building new relationships between consumers and producers, and meeting material needs, social interests, and spiritual demands, especially in production and industrial engineering. With the entry of Kazakhstan enterprises into international markets and the opening of the Kazakh market for the goods of foreign firms, the problem of product quality has become a priority for domestic producers. Currently, there are problems in the implementation of the quality management system in Kazakhstan. Accordingly, the article discusses the problems of implementing a quality management system in the example of a company producing bentonite clay in Kazakhstan. The methods of observation, analysis, and synthesis, as well as the technique of interview with the head of the quality group, were used for the research. As a result of the research, the management system introduced in this enterprise was discussed, and the problems observed during the system implementation were presented, as well as recommendations for the company.

**Keywords:** certification, quality management system, integration, standard, clay.

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### Introduction

Currently, there is a focus on meeting the needs of consumers. At the same time, the requirements for products and services are becoming more stringent every year. It means that manufacturers are increasingly thinking about careful quality control. The need for quality control at every stage of production is currently a generally accepted position, which shows that all employees of the enterprise are responsible for the quality of products and services. To continuously improve and increase the competitiveness of goods and services in the domestic and global markets, companies are implementing quality management systems (QMS).

When certifying management systems, any company faces several main problems that need to be solved based on the internal conditions of the company's functioning: the direction of activity, staffing, and financial resources of the company while considering the constantly changing external conditions: legal norms of the company's country of origin, tax conditions, competition in the market, etc. For the successful implementation of the management system, it is necessary to formulate the main problems of QMS implementation and propose ways to solve them, which is described in this article on the example of an operating enterprise producing bentonite clay in Kazakhstan.

Various explanations of the concept of QMS can be found in modern literature. The International Organization for Standardization defines a QMS as part of a quality-oriented management system that aims to formulate policies and objectives, as well as processes to achieve these goals [1]. For the successful operation of any enterprise, it is necessary to form and maintain an effective management system, an

integral part of which is quality management. The basis for the formation of a quality management system can be the international standards of the ISO 9000, ISO 14000, ISO 22000 series for products, ISO 17000 series standards for services, etc. as well as national and interstate standards developed on their basis.

A QMS is a part of an organization's management system that addresses the needs, expectations, and requirements of stakeholders to achieve results consistent with quality objectives. Quality goals complement the organization's other goals related to development, financing, profitability, environment, occupational health, and safety. This can make it easier to plan, allocate resources, define additional goals, and evaluate the overall performance of the organization [2]. Creating a quality management system requires a strategic decision of the organization. The creation of a quality system is understood as its development and implementation in the enterprise's activities. Creating an effective quality system takes several years and requires the involvement of all the company's personnel in quality management activities.

In Kazakhstan, the implementation of quality management systems is stimulated, including at the state level. Thus, the presence of a certified QMS is an essential condition for participation in the annual Kazakhstan competition for the national award "Altyn Sapa" [3]. Following the requirements of the market, more and more enterprises are certifying their management systems, but not all of them are effective. There are several reasons for this. In the modern scientific literature, the problem of creating and improving quality management systems at various enterprises is reflected in the works of both Kazakhstani and foreign scientists – Karzhaubaeva K.E. [4], Efimova V.V., Samsonova M.V. [5], Leonova O.A., Temasova G.N., Vergazova Yu.G. [6] and others. Some studies describe common problems in implementing all management systems. For example, in the works of Russian researchers, it is assumed that the main reasons for inefficient functioning in the implementation of QMS in Russia are a formal approach to implementation, insufficient awareness of the importance of QMS implementation, as well as insufficient qualification of personnel [7]. Other researchers call the main problems in implementing the QMS the following: tight deadlines set by management, ignorance of the specifics of international standards, insufficient motivation of staff, financial constraints, and a large amount of documentation developed [8].

Several studies are devoted to the development of ways to solve any implementation problem, for example, the psychological resistance of personnel when implementing a specific quality system [9], and the problem of implementing QMS in industrial enterprises and organizations of various fields of activity [10].

At the same time, the research focus of most studies on certain issues of quality management determines the lack of scientific discussions on the development of theories, methods, and practical tools of quality management systems. Currently, the actual implementation of the management system functioning process has not been resolved, which leaves some problems associated with the development of agreed concepts, methods, and tools. In addition, the scientific literature describes a number of other significant problems that we have to face when implementing QMS in practice [11]: wrong choice of consulting company, offering its own QMS development services; a formal approach to project implementation (the system functions only on paper); development of QMS documentation only by means of a specially created quality service at the enterprise, without the participation of other departments and managers; incorrect organization of the staff training process.

Implementation of various areas of management systems in Kazakhstan will contribute to the further dynamic and qualitative development of Kazakhstani organizations and enterprises that produce products and provide services, including consulting in the field of development and implementation of management systems, the creation of a national system for training expert auditors in the field of management systems that meets international standards and allows Kazakhstan to integrate. It will contribute to solving the strategic task of making Kazakhstan one of the fifty most successful countries in the world. Competitive countries in the world [12].

For successful implementation and functioning of the QMS at a particular enterprise, it is necessary to first consider the structure of the enterprise's activities, identify the main tasks and potential problems, and suggest certain solutions described in the relevant literature, adapted to the analyzed enterprise what was done in this article.

## Material and methods

### *Characteristics of the research object*

The object of research is an enterprise engaged in the extraction of bentonite clay, as well as the sale of products based on it. The company's raw material base is a high-quality bentonite clay deposit-Taganskoye, located in Eastern Kazakhstan [13]. The bentonite clay mining enterprise is the first enterprise of the Bentonite Group of Companies operating in the pharmaceutical market of Russia and the CIS countries. The Taganskoye field has the widest range of reserves of high-quality alkaline, alkaline earth, and pharmaceutical bentonites. Based on the results of a detailed exploration of the deposit, it was revealed that it is represented by three industrial bentonite horizons of different compositions, with approved total reserves of over 9 million tons. Bentonite clays of the Tagansky deposit are among the highest quality not only in Kazakhstan but also abroad. Due to the properties of montmorillonite, the main rock-forming mineral, bentonite of this deposit has a wide range of applications in traditional industries and agriculture. There is also an opportunity to expand the product range and start the production of innovative products: as a component to produce oil-cracking catalysts and for pharmaceutical production.

The latest technological developments and extensive research in the field of bentonite applications of the Taganskoye deposit have created conditions for the company's continuous development and expansion in the commodity market, and it has established strong relationships with large consumer companies in Russia, the CIS countries and Europe. In the next two years, it is planned to build a full-cycle plant based on the Taganskoye field, which will include a production line for processing bentonite clay: iron ore pellets and pellet concentrates; adhesives used in the oil and gas industry, drilling, and hard disk drives; expansion used in the preparation of molding mixtures in the foundry industry; viscous agent for the treatment of radioactive waste in the nuclear industry; organoleptic for environmental purposes; raw materials for catalysts such as oil cracking.

High precision of the production process is ensured using modern equipment and professional staff. At the same time, the company is constantly improving technologies, materials, and working methods. The quality of bentonite clay is evaluated in the laboratory based on the following indicators: compressive strength in wet conditions; tensile strength in the zone of condensation of moisture; heat resistance; moisture content and granulometric composition (for powdery). In addition, at the stage of geological exploration of new deposits and the actual period of exploration of existing deposits, it conducts clay quality control based on the following indicators: montmorillonite content; amount and composition of exchange cations; carbonate content in SASOZ; mass fraction of sulfur sulfide; iron content in Fe<sub>2</sub>O<sub>3</sub>; clay particle content; colloids; water absorption rate. The enterprise interacts with the external environment: suppliers of energy and material resources, state, tax, statistical authorities, and firms that provide practical assistance in organizing accounting and control at the enterprise. The highest body of the partnership is the founder. The executive and administrative body of the partnership is the director appointed by the founder. The manufactured products are of high quality and are in great demand on the market, and to establish favorable relations with consumers of products, there is required continuous improvement of the quality system.

### *Analysis of the present quality management system in the enterprise*

The methods of observation, analysis, and synthesis as well as the interview technique were used for the research. The observation was made in September 2022 and the head of the quality group in the

Quality Control Department was interviewed on 20 September 2022. The head of the quality group was allowed to get acquainted with the QMS documents. During the interview, the following questions were asked in the field of the functioning of the quality system:

- how is the QMS functioning assessed?
- how often is the internal audit of the QMS conducted?
- are there constantly recurring problems in the work of the enterprise?
- are the deadlines for the approval of corrective and preventive action plans regulated?

The company that extracts bentonite clay mining company has implemented a quality management system (hereinafter – QMS), ISO 9001:2016 standard. Currently, within the framework of quality management, the company has developed and approved system documents in accordance with international standards: Company Policy, Management Guidelines, Environmental Management System Guidelines, Occupational Safety and Health Management System Guidelines, Documentation Management Rules, Internal Audit Rules, etc. The company's quality management policy provides for the achievement of the following objectives:

- Significantly improve the quality of products to ensure effective competition and develop new markets that the company previously could not enter;
- Fully meet the expectations and requirements of consumers in terms of quality, safety, availability, and product range;
- Systematically reduce non-production costs and increase the profitability of work based on the introduction of technological methods and the formation of economic levers for managing the internal processes of the enterprise;
- Create sources of investment for the development and implementation of new investments in accordance with market demand.

The purpose of creating an environmental management system in an enterprise is to maintain and improve the Company's environmental safety management system, confirm the Company's compliance with the declared environmental policy and requirements of international standards in the field of environmental safety management, and certify the integrated management system by international certification bodies [13]. The company's occupational safety and health policy is based on the state policy in the field of occupational safety and health, established by Article 306 of the Labor Code of the Republic of Kazakhstan, considering the specifics of production activities and includes the main policy directions, main goals, and objectives, participation of interested parties in occupational safety and health management. The purpose of the occupational safety and health management system is to continuously improve the working conditions of the company's employees and ensure the safety of the lives of people who find themselves in the Company's area of activity.

The current QMS of the company corresponds to the approved Quality Policy, which defines the main strategic goals and obligations of the LLP management in the field of improving the quality of extractive products; improving working conditions and ensuring the safety and health of personnel; ensuring the availability of information about the LLP's activities; meeting the needs of all stakeholders. The bentonite clay mining company is preparing for certification of compliance of the quality management system with the requirements of GOST ISO 9001-2015 in relation to the production and sale of bentonite clay and clay powders. The quality of products is controlled by a factory laboratory certified by the standard. Production technologies of the main products are protected by patents of the Republic of Kazakhstan. In June 2022, the external inspection audit of QMS business processes was successfully completed/SUIS for compliance with the requirements of MS ISO 9001 (QMS) and ISO 20000 (SUIS). New international certificates on business processes of activity were obtained. The company during its activities is guided by RK-0-001, which is an internal regulatory document of the company and describes the integrated management system in the company. RK-0-001 "ISU. Quality Manual" is developed in accordance with the requirements of the international standards ISO 9001, ISO/IEC 20000, and ISO/IEC 27001.

Enterprise activity is managed based on DP-0-005 “Business Process Management”, a standard that distributes responsibility and regulates the rules for interaction between structural divisions. The process approach used in the enterprise involves defining and describing all the processes necessary to achieve strategic goals, as well as establishing relationships between processes and their subsequent management, including continuous improvement using the PDCA methodology. The main purpose of applying the process approach to management in an enterprise is to: ensure the achievement of the company’s goals, through a clear definition of the goals of each process, prioritization, and rational use of available resources; ensuring that all employees are focused on achieving the company’s goals; regulation of the system of interrelations within processes; ensuring the proper quality of the result obtained within the framework of the activity performed by performing all necessary operations in the process; analysis and monitoring of process execution based on performance indicators; ensuring transparency of ongoing processes at the enterprise in order to obtain objective information about the effectiveness of the activities carried out.

The process requirements are shown In Table 1.

Table 1 - Process requirements for a bentonite clay mining company

Requirement	Characteristic
Purposefulness	Each process has its own goal (result), which is the main criterion for the effectiveness of the process and is directly related to the goals of the enterprise. Meeting the goals of all processes leads to the fulfillment of the enterprise’s goals
Creating value	Each process contributes to the enterprise’s value stream
Standardization	Documentation of processes, to establish uniform rules and standards for the implementation of the enterprise
Consistency	Perception of all processes as a single system, solving local problems does not change the system, changes are made considering the entire set as a whole
Continuous improvement	Reducing deadlines, improving quality, reducing losses
N o t e : Developed based on DP-0-005 “Business process management”	

Business process management is aimed at continuous improvement to guarantee the achievement of the strategic goals of the enterprise and is carried out according to the PDCA Dumping cycle [6]. After performing the “adjustment”, the cycle starts again with “planning”. The planning process is continuous, cyclical, and continuous to ensure that product requirements are met. The director of the enterprise is responsible for planning processes to ensure the product lifecycle. Communication with consumers includes providing information about products; processing requests, and contracts, including their changes; receiving feedback about products from consumers, including consumer complaints. The necessary requirements for the extracted products are defined in legislative and regulatory legal acts, and in internal regulatory documents and are mandatory for application. Before making a commitment to sell products to consumers, the company conducts an analysis of potential opportunities to consider requirements set by the user; requirements that are not stated by the consumer but are necessary for a specific or intended use by the consumer; requirements of contracts with consumers. Based on the decisions made, adjustments are made to the relevant documentation.

## Results and Discussion

The company’s quality management system has been implemented since its inception and currently, the current system applies to all departments and workshops. During its existence, the system

has repeatedly expanded its scope and continues to be constantly improved. The general intentions and direction of quality activities are formally formulated in the Quality Policy, Business Process Management. The functioning of the quality management system is evaluated through annual external and internal audits, which help to improve the effectiveness of production activities. Based on the results of the report, a plan of corrective and preventive measures was developed. Table 2 shows the problems in the management of enterprises, the solution of which is possible during the enterprise's activities.

Table 2. Enterprise management problems and ways for solving

Identified problems	Proposed recommendation
1	2
The most repetitive business processes are not always documented.	Once a month, conduct introductory (QMS changes) and explanatory training
Not approved in the job descriptions of department heads and leading specialists on product promotion issues.	It is necessary to regulate the terms of approval of the commercial offer, review the terms of approval of the calculation, review the scope of work, transfer the cost of work to a subscription fee, and move away from man-hours.
Refusal to train or improve the skills of employees with the wording-lack of the necessary budget.	Introduce a mentoring system at the enterprise
When operating data transmission networks, processes are not documented; measurement devices are not checked on time; additional payments are not made to employees for emergency recovery work outside working hours.	To constantly improve the skills of personnel in accordance with the requirements of an approved annual training plan; motivate employees.
Lack of methods and technologies that allow to objectively assess the opportunities and prospects of employees of the enterprise	Train managers to conduct interviews. Improve the induction procedure. When selecting personnel, user testing, because testing is also a source of information that can provide information about the candidate's personal characteristics, professional abilities, and abilities
The mechanism of material incentives for personnel does not work, which allows attracting competitive employees to the management system	Introducing a bonus system for developing mechanisms to reduce the cost of production, standards, and norms for spending economic resources
Note: Developed on the basis of FC-DP-0-003-004 " Report on internal audit in the enterprise [14]	

From the data presented in Table 2, it follows that the company does not always document the most repetitive business processes, the reason for this is a misunderstanding of the need for this documentation by the director and employees of the enterprise, and this documentation has been introduced only since the end of 2020. The results of the analysis showed that the processes of the enterprise's management system function with certain shortcomings, that is, the processes are managed, but not at the proper level, and corrective actions are required to eliminate the identified inconsistencies. In this regard, it is necessary: to approve the annual training plan of the company's employees and monitor its implementation, to coordinate and approve plans of corrective and preventive actions in a timely manner and monitor their execution, to strictly regulate the deadlines for the execution of external and internal correspondence, to provide a system of material and moral incentives in order to improve

the efficiency of staff, to improve the internal and external risk management system in order to eliminate the possibility of manufacturing defects, as well as potential damage to the consumer.

The main disadvantage of the existing enterprise management system is that it has a negative impact on quality assurance issues and, consequently, has a negative impact on the results of work:

- Imperfect management decision-making mechanism. In many cases, the decision-making process is very bureaucratic. Business and technical processes are not fully formalized, which leads to inconsistent and mutually exclusive decision-making. There is no consistency between strategy, business planning, and management.
- Different divisions of the company do not have clear boundaries of authority and responsibility in interaction in the performance of their functions. The system of decentralization of responsibility and monitoring of the effectiveness of implemented management decisions and processes is not sufficiently developed, which has led to an excessive centralization of management.
- There is no single method for diagnosing the quality state of the enterprise and formal system of product quality indicators. Criteria for evaluating the quality and effectiveness of products in terms of financial results are not defined.
- The use of outdated and unqualified technical means and technical equipment regulations does not contribute to the effective implementation of technical processes and does not ensure their flexible optimization to improve the quality and efficiency of resource use.
- The company does not have a system for managing external and internal risks. This system does not allow for continuous improvement of the enterprise's operations based on an early assessment of the possibility of adverse changes and potential damage, as well as providing appropriate countermeasures and protective measures.
- Inefficient management of information flows and use of information. The collection and analysis of management information and internal statistical reports have not been fully optimized, and there is no unified system for measuring, collecting, and analyzing information about the quality of products and processes, which does not allow for timely and objective assessment of the company's activities, as well as effective management of resources and processes.
- Imperfection and non-transparency of the existing employee incentive system. The current incentive system does not allow for achieving the required level of employee interest in the quality of an internal or final product. There is no correlation between the quality level and motivation. This is based on a system of metrics that provides each employee with the motivation to perform high-quality work.

Thus, the stable and effective functioning of the quality management system should consist of strict compliance with the procedures described above, as well as the use of standards and other practices in the field of product quality. In addition, the analysis of the quality management system and the conclusions drawn from the results of the study revealed several shortcomings, as well as insufficient attention to some issues the existing methods of forming the remuneration fund at the enterprise are outdated and require revision.

To solve this number of problems, it is necessary to adopt a systematic approach to optimizing management tools and activities of the enterprise based on the development and implementation of an integrated quality management system. The integrated management system will allow the bentonite clay mining company to: Implementation of a comprehensive enterprise development plan, considering the requirements of stakeholders: investors, consumers, employees, society, etc.; By adopting a common policy, goals, and objectives, create conditions for reducing conflicts between different management systems of the organization. By reducing the cost of developing, operating, and certifying an ISM compared to the total cost of multiple autonomous control systems, resource efficiency is improved; Reduce management risks due to the fact that a single system provides accounting for the consequences of any action and the risks associated with it; Increase the satisfaction of potential customers, suppliers,

investors, and other stakeholders; Improve the company's business image; Understand the role of each employee in achieving common goals, increasing employee enthusiasm and creating conditions for the formation of a unified corporate culture; Reduce audit costs by reducing the number of required audits; Reduce labor costs for the transition to the new version of the occupational health and safety management system standards. Thus, an integrated quality management system is a set of organizational structures, procedures, and processes necessary to implement overall quality management. The methods proposed for implementation by organizations and the expected results of QMS implementation in a bentonite clay mining company are presented in Table 3.

Table 3. Expected results of integrated quality management system implementation in a bentonite clay mining company

Key element	The proposed methods that can be implemented by the organization	Expected results
1	2	3
What is management focused on? What is the management approach? (Manual)	Conceptual organizational model; algorithm of element-by-element integration of strategic management and quality management and integrated model; system of principles and tools for effective implementation; functional and structural implementation model; implementation mechanism; matrix of integration of quality management into the strategic management system.	Solutions are based on the deployment of the strategy, the need for flexibility, agility, and stability of operations, considering the needs of all stakeholders. An active approach aimed at training and empowering employees at all levels.
How are decisions made? (Strategy and Policy)	Strategy development: mini-foresight session-development scenarios, strategic map, MTSP, matrix of integration of quality management into the strategic management system in the aspect of an adapted MTSP system and quality management methods.	Strategy is developed based on actual data obtained as a result of a comprehensive analysis using the tools of QMS and MC.
How the organization responds to external and internal risks Wednesday? (Organization's environment)	Dynamic instrumental and methodological model of QMS; integrated model of balanced analysis of the enterprise context; PEST+E-analysis, assessment of the degree and time of occurrence of environmental factors, rating of strategic priority of the influence of factors; matrix of assessment of stakeholders' interests and its effectiveness. visualization, SWOT-analysis, interest assessment matrices of opportunities and threats; final matrix "Organization context"; the mechanism for identifying key business processes of the organization; Y-matrix for identifying key processes of the enterprise.	The organization continuously analyzes the environment, as well as assesses and plans risks reducing, eliminating or benefitting from opportunities.
Does the organization relate to the needs of stakeholders? (Stakeholders, their needs and	Matrix for assessing stakeholders' interests and its visualization, SWOT analysis, matrix for assessing the interests of opportunities and threats; final matrix "Organization context".	Stakeholders' needs and expectations serve as the basis for top management decision-making and are fully.



expectations)		
How are the resources needed to achieve results identified? (Resources)	Translation of targets to different levels of the hierarchy, X-matrix, cascade of X-matrices, catch ball matching ball method; Y-matrix for establishing a link between significant factors, goals, and breakthrough events; model of organizational processes that include subsystems of strategic management and quality management; decomposition of a balanced system of strategic indicators of the enterprise.	Resources are planned, effectively structured and meet the requirements of stakeholders.
How are activities organized? (Processes)	System of principles and tools for effective implementation; functional and structural model of implementation; implementation mechanism matrix of integration of quality management into the strategic management system in the aspect of an adapted quality management system and methods.	There is a QMS that is effective and efficient, promotes strong links between processes and ensures maneuverability and improvement, promotes innovation.
How is the learning process organized? (Training, knowledge)	Information collection, storage, processing and use system - information database and strategic landscape of the enterprise.	Learning processes developed by the organization are used together with relevant stakeholders and contribute to a creative and innovative approach.
How are results achieved? How is the results monitored? (Monitoring and measurement)	Methodological approach to monitoring: algorithm for internal strategic verification; system and criteria for evaluating strategic performance; strategic performance rating; rank correlation of the level of strategic performance; translation of targets to different levels of the hierarchy, X-matrix, cascade of X-matrices, <i>catch ball matching method</i> ; Y-matrix for establishing the relationship between significant factors, goals and breakthrough events; model of organizational processes that include subsystems of quality management and strategic management; decomposition of a balanced system of strategic indicators of the enterprise.	The results achieved are higher than the industry average and are maintained at this level for a long time. Improvements and innovations are being implemented at all levels of the organization. Key performance indicators are included in the monitoring of all processes in real time, and performance indicators are quickly communicated to all stakeholders.
How is the priority of improvement measures determined? (Improvements, innovations)	All developments.	The priority of improvement measures depends on information received from new stakeholders, as well as an analysis of the organization's context.
Note-source: Developed on the basis on [15]		

## Conclusion

In the theory and practice of quality management, there are identified two problems such as product quality and quality management. Quality assurance requires considerable costs. Until recently, the main share of quality costs was accounted for by physical labor. But today the share of intellectual labor is high. The quality problem cannot be solved without the participation of scientists, engineers, and managers. There should be a harmony of all components of professional influence on quality. If you do not pay serious attention to quality, significant funds will be required to correct defects. A much greater effect will be achieved by developing long-term programs to prevent defects. Such a solution is the introduction of quality management systems. However, problems may arise during and after the implementation of quality management systems, including as presented in this article. Therefore, it is important to implement corrective or remedial actions in these systems.

As a result of the research on the analysis of the quality system in a company producing bentonite clay in Kazakhstan, there were identified several main problems, and the following recommendations were proposed to solve:

- adopt a systematic approach to optimizing the management tools and activities of the enterprise based on the development and implementation of an integrated quality management system,
- conduct continuous training and professional development of the company's employees and management personnel to understand the importance of documenting business processes,
- conduct systematic training for employees, including changes in the quality system, and monitor their implementation;
- timely coordinate and approve corrective and preventive action plans;
- change procedures for external and internal correspondence;
- improve the internal and external risk management system in order to eliminate the possibility of manufacturing defects, as well as potential damage to the consumer.

The above recommendations will improve the efficiency of the enterprise, will promote strong links between processes within the enterprise, and an innovative approach aimed at meeting the needs of all stakeholders.

The implementation of quality management systems in enterprises in Kazakhstan, and their further improvement, will contribute to the further dynamic and qualitative development of Kazakh organizations and enterprises producing products and providing services. It will contribute to making Kazakhstan one of the most competitive countries in the world.

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### **Бентонит сазын өндіретін кәсіпорында сапа менеджменті жүйесін енгізу**

**Аңдатпа.** Әлемнің дамыған елдерінде сапаны арттыру проблемасы өнімдер мен қызметтердің бәсекеге қабілеттілігін қамтамасыз етуде, тұтынушылар мен өндірушілер арасында жаңа қатынастар құруда, материалдық қажеттіліктерді, әлеуметтік мүдделер мен рухани сұраныстарды қанағаттандыруда, әсіресе өндіріс пен өнеркәсіптік машина жасау саласында жетекші орын алады. Қазақстандық кәсіпорындардың халықаралық нарықтарға шығуымен және шетелдік фирмалардың тауарлары үшін қазақстандық нарықтың ашылуымен отандық өндіруші үшін өнім сапасы мәселесі басымдыққа ие болды. Қазіргі уақытта Қазақстанда сапа менеджменті жүйесін енгізуде проблемалар бар. Тиісінше, мақалада Қазақстанда бентонит сазын өндіретін кәсіпорын мысалында сапа менеджменті жүйесін енгізу мәселелері қарастырылады. Зерттеу үшін бақылау, талдау және синтез әдістері, сондай-ақ сапа тобының жетекшісімен сұхбат әдісі қолданылды. Зерттеу нәтижесінде осы кәсіпорында енгізілген менеджмент жүйесі қарастырылды, жүйені енгізу кезінде байқалған мәселелер, сондай-ақ компания үшін ұсыныстар ұсынылды.

**Түйін сөздер:** сертификаттау, сапа менеджменті жүйесі, сапа менеджменті, интеграциясы, стандарт, саз.

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### **Внедрение системы менеджмента качества на предприятии по производству**

## БЕНТОНИТОВОЙ ГЛИНЫ

**Аннотация.** В развитых странах мира проблема повышения качества занимает ведущее место в обеспечении конкурентоспособности продукции и услуг, построении новых отношений между потребителями и производителями, удовлетворении материальных потребностей, социальных интересов и духовных запросов, особенно в сфере производства и промышленного машиностроения. С выходом казахстанских предприятий на международные рынки и открытием казахстанского рынка для товаров иностранных фирм проблема качества продукции стала приоритетной для отечественного производителя. В настоящее время существуют проблемы во внедрении системы менеджмента качества в Казахстане. В статье рассматриваются проблемы внедрения системы менеджмента качества на примере предприятия по производству бентонитовой глины в Казахстане. Для исследования использовались методы наблюдения, анализа и синтеза, а также метод интервью с руководителем группы качества. В результате исследования была рассмотрена система менеджмента, внедренная на данном предприятии, представлены проблемы, наблюдаемые при внедрении системы, и рекомендации для компании.

**Ключевые слова:** сертификация, система менеджмента качества, интеграция, стандарт, глина.

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