

**BASIC CONCEPTS IN THE SPHERE OF INDUSTRIAL ECOLOGICAL
SECURITY**

¹Kamilov Sh. E., ²Ruzieva I.D., ³Alijanov S. D., ⁴Safaev M.A

Junior researcher of the waste department¹, senior researcher of the waste department², junior researcher of the waste department³, head of waste department, associate professor, candidate of chemical sciences⁴ Research institute of environment and conservation technologies

shuhrat4444@mail.ru¹, urziya_ibragimova@mail.ru², s.alijanov1984@mail.ru³

ABSTRACT

The goal of the industrial and environmental safety system is to timely identify and prevent both external and internal dangers and threats, to ensure the enterprise security and achieve its business goals. The enterprise's environmental safety system development and its successful functioning should be based on the methodological foundations of the safety scientific theory.

Keywords: safety, industrial, hazardous facilities, destruction, accident, emissions, fire, explosion, equipment, repair, technological process, automation, modernization, risk.

INTRODUCTION

Included in the concept of "general industrial safety, including environmental hazardous production facilities" (in abbreviated form - "industrial safety"), the word "industrial" is derived from the word "industry", meaning the industry, covering the raw materials processing, the subsoil development, the creation of production and consumer goods means. In fact, this word meaning covers the services spheres and life support of the population associated with the hazardous production facilities operation. Industrial safety of hazardous production facilities is defined as a property or hazardous production facilities state themselves, but as a protection state of the the individual and society interests. The protection of the individual and society interests is understood as the accidents prevention, their localization, elimination and their consequences mitigation. Industrial safety in emergency situations (ES) is defined as the population protection, production personnel, the national economy and the environment objects from state the dangers arising from industrial accidents and disasters in emergency zones. Industrial safety in protecting the interests (life and health) of the employee's personality is associated with labor protection, which, according to the Labor Code (Labor Code of the Republic of Uzbekistan on 21.12.1995.) [1] is a system for preserving the workers life and health in the work process, including legal, socio-economic, organizational and technical, sanitary and hygienic, treatment and prophylactic, rehabilitation and other measures. Industrial safety is to a certain extent also related to fire safety (regarding the prevention of accidents associated with fires), with the subsoil use (in the safe conduct of work related to the use of subsoil), with urban planning activities (in ensuring the reliability and safety of buildings and structures at a hazardous production facility), with environmental protection (in preventing accidents causing damage to the environment). It is also related to the safety types specified in the Law on technical regulation: mechanical safety (in the destruction of buildings, structures and Technical Conditions), chemical safety (in toxic emissions, highly toxic substances and substances hazardous to the environment), explosion safety (in explosions of various nature), thermal safety (in safety of equipment operating at temperatures above 115°C), with product safety (Technical Conditions). One of the synonyms for industrial safety of hazardous production facilities of the brief formulation "industrial safety", this formulation is found only in the concept of "safety justification for a common hazardous, including an environmentally hazardous industrial facility."

Accident - structures destruction or technical devices used at a hazardous production facility, uncontrolled explosion or release of hazardous substances.

The Convention for the major industrial accidents prevention (Convention №174, adopted at the 80th session of the General conference of the international labor organization Geneva, June 22, 1993) major accident means a sudden occurrence, such as a major release, fire or explosion during a hazardous facility operation, caused by one or more hazardous substances and leading to both immediate and delayed serious hazard to workers, the public or the environment [2]. The Insurance law refers to accidents at a hazardous facility, includes damage or structures, technical devices destruction used at a hazardous facility, explosion, leakage, hazardous substances release, rocks (masses) collapse failure or damage of technical devices, deviation from the process mode, water discharge from the reservoir, liquid waste of industrial and agricultural organizations that arose during a hazardous facility operation and caused harm to the victims.

An accident at a hazardous production facility is considered hazardous man-made accidents - an uncontrolled explosion or hazardous substances release, structures or equipment destruction that are part of active, hazardous production facilities, a certain territory or water area adjacent to them, a threat to the life and people health and leading to production disruption or transport process, causing damage to the environment.

The destruction of structures, Technical Conditions can be the result of an explosion or fire caused by the release and ignition of hazardous combustible substances. An explosion may also result from such substances release, which have formed an explosive mixture with the oxidizer, or from oxidizing substances release. The hazardous substances release, in turn, can be caused by their structures containing destruction, Technical Conditions, which as a result of an explosion (for example, equipment operating under excessive pressure). The list of accidents depending on the economy sectors and supervision types is given in a number of sectoral methodological documents. Accidents in these documents (eg. fires, rock outbursts, water breakthroughs, etc.) do not always meet an accident definition. In the protection against emergencies, an accident is a dangerous man-made incident that creates a threat to the life and people health at an object, a certain territory or water area and leads to the buildings, structures, equipment and vehicles destruction, the production disruption or transport process, as well as damage to the environment. As a dangerous man-made accident resulting in a man-made emergency, an accident is the source of such an emergency.

Methods

The environmental safety of the enterprise is designed to perform certain functions. Their most significant development include the following: forecasting, identification, prevention, hazards and threats mitigation, ensuring environmental protection of the enterprise and its personnel, preserving property, creating a charitable competitive environment, eliminating the damage consequences and others.

Incident - failure or damage to technical devices used at a hazardous production facility, deviation from the established mode of the technological process.

An incident is a dangerous incident and a dangerous situation created by it, associated with failure or damage to equipment and technical devices, or with a dangerous deviation from the established mode of the technological process, which did not entail accidents, including in the field of ecology. In an incident, unlike an accident, there is no destruction, but only a failure or damage to technical devices. Similarly, an incident is considered in the Technical regulations of the Customs union "On the safety of machines and equipment" (TR CU 010/2011) [3], according to which the refusal consists in the violation of the working condition of the machine and (or) equipment due to structural violations during the design, non-compliance with the established

manufacturing process or repair, failure to comply with the rules or manuals (instructions) for use. An incident at a hazardous production facility is a failure or damage to technical devices or systems (telemechanics, communications, power supply, electrochemical protection, etc.) used at a hazardous production facility, a deviation from the process mode that did not affect the facility performance, but caused the need to take abnormal actions not provided for by the maintenance and repair plan to restore its safe state, as well as violation of the provisions of laws adopted in accordance with them by the normative legal acts of the President and the Government.

A technological process is a part of the production process associated with actions aimed at changing the properties and (or) state of substances and products circulating in the process. The production process is a set of technological and other processes necessary for production; working (production) operations, including labor activity and labor functions of workers. The technological process mode can be synonymous with the technological mode - the set of parameters values of the technological process in a certain time interval. The "incident" concept for facilities with hazardous substances is close to the "emergency" concept defined in the Convention on the Prevention of Major Industrial Accidents (Convention No. 174) as any sudden event associated with one or more hazardous substances that could lead to a major accident, but which did not happen due to constraints, actions or systems. Technical devices used at a hazardous production facility - machines, technological equipment, systems of machines and (or) equipment, units, apparatus, mechanisms used in the operation of a hazardous production facility.

The concepts of "machine" and "equipment" are defined in the Technical Regulations of the Customs Union "On the safety of machinery and equipment", where the equipment is directly called a technical device. Sometimes a machine and a set of machines are also referred to as equipment, and technological equipment, in which materials or workpieces, means of influencing them, as well as technological equipment are placed to perform a certain part of the technological process. Technological equipment can be foundry machines, presses, machine tools, furnaces, galvanic baths, test benches, etc. A gas turbine unit is defined as a structurally integrated set of a stationary gas turbine unit and a driven machine. The standard unites machines and mechanisms in one term, considering them, obviously, synonyms. At the same time, these concepts still have semantic differences: we can talk about the mechanism of a machine, but not about the machine of a mechanism. Along with the concept of "technical devices" the concepts of "devices", "control systems", "equipment", "mechanisms" are used.

Justification of a hazardous production facility safety — is a document containing information on the results of assessing the accident risk at a hazardous production facility and the associated threat, conditions for safe operation of a hazardous production facility, requirements for operation, overhaul, conservation and liquidation of a hazardous production facility.

The safety justification is determined by indicating this document content, which should contain an accident risk assessment results at a hazardous production facility. The name of the document itself indicates that it should justify a hazardous production facility safety.

Industrial control system, including environmental safety —is a complex of interrelated organizational and technical measures carried out by an organization operating hazardous production facilities.

The industrial safety management system is mentioned in the approved by the Government (Resolution of the Cabinet of Ministers dated February 1, 2019 No. 75) [4]. The rules for the organization and implementation of production control over compliance with industrial safety requirements at a hazardous production facility, where it is established that production control is its integral part. The set of measures

specified in the definition of this concept is close to the set of measures carried out by the operating organization within the framework of production control. The industrial safety management system objectives are established in this concept definition - accidents prevention and incidents at hazardous production facilities.

Technical re-equipment of a hazardous production facility — is a leading to a change in the technological process at a hazardous production facility, the introduction of new technology, a hazardous production facility automation or its individual parts, modernization or replacement of technical devices used at a hazardous production facility.

The re-equipment of an environmentally hazardous production facility is one of the activities in the industrial safety. The definition of this concept is similar to the definition of the concept of "technical re-equipment" does not consider the introduction of advanced technology, the production mechanization to be technical re-equipment and does not consider the production automation as such, but a hazardous production facility automation (an enterprise or its workshop, site, platform) or its individual parts.

Expert in the industrial environmental safety — is an individual certified in accordance with the established procedure, who has special knowledge in the industrial environmental safety, complies with the requirements established by the norms and rules in the industrial environmental safety, and participates in the environmental examination of industrial safety.

Results

The mechanism for managing the environmental safety of an enterprise is an objectively determined sequence of actions to ensure the economic security of an enterprise. Its main elements include: determining the needs for ensuring security, forces and means, as well as the organizational and economic mechanism, the goals and objectives formulation for ensuring security. Implementation of the developed measures ensures the achievement of the set goals.

The security system formation, and, above all, its bodies (subjects) creation depends on the enterprise size, its environmental, economic, financial, production and technical, information, intellectual, professional, organizational and other capabilities. Experience shows that small businesses most often use the external specialized private organizations services: consulting, security, information, etc. These include: registration chambers, firms for the selection and certification of personnel, credit bureaus that provide information services on the business reputation of partners, marketing research centers, private security and detective organizations, etc.

CONCLUSION

As a result of considering the environmental, economic, technological system, in general, the strategic security of the enterprise, we can conclude that all interested services of the enterprise are called upon, based on the effective use of corporate resources, to create conditions for achieving business goals, to timely detect and minimize the various hazards and threats impact in the unforeseen technological, environmental, economic moments conditions of enterprise safety.

REFERENCES

1. <https://lex.uz/docs/145261>
2. https://nrm.uz/contentf?doc=61865_konvenciya_174
3. <http://docs.cntd.ru/document/902307904>
4. <https://lex.uz/docs/4187154>