**UDK-3318 (575)** 

# ALGORITHM FOR CREATING INDUSTRIAL SAFETY DECLARATION FOR HAZARDOUS PRODUCTION FACILITY

#### Makhmatkulov Nurilla Imomovich

associate professor, department of "Labor protection and technical safety" Karshi Engineering Economics institute

E-mail: mail.runurilla.mahmatqulov@mail.ru

Annotation: In this article, in the field of development of industrial safety declaration in hazardous industrial facilities, regulatory legal documents, analytical results of scientific and research works are developed, mainly the algorithm of industrial safety declaration and recommendations for its introduction into production have been developed.

**Key words and phrases**: industrial facilities, industrial safety declaration, emergency situations, facility security, military operations, terrorist operations, category, labor protection.

### INTRODUCTION

The country's safety is protected by making sure that all customer networks and security zones are safe. This business can create a system (industrial networks) or power. A clear illustration of this is when accidents happened at Chernobyl, Fukasuma NPP, or when landslides and floods occurred in a place called "Jigaristan" in the Tashkent region and Mazar-e-Sharif province in Afghanistan.

This means that if industrial facilities can function normally during emergencies, military attacks, and economic crises, it will help the country's economy stay stable and grow. To keep industrial facilities safe, we need to plan and prepare for emergencies or accidents that might happen. This is accomplished by creating a document that ensures safety in factories and other industrial places. If we think about these words, it shows that this subject is very fascinating.

The research has certain goals so these tasks are determined:

The text is about studying and analyzing legal documents and research papers that focus on creating safety rules for industries.

Based on the analysis results, we will create a step-by-step plan for ensuring safety in the industry. We will also provide suggestions and recommendations on how to put this plan into practice.

Scientific Journal Impact Factor (SJIF): 5.938

### RESEARCH METHODS

In the process of research, the analysis of scientific and teaching-methodical literature, pedagogical observation, comparative analysis, generalization, pedagogical experiment-test and foresight methods were used.

## RESEARCH RESULTS AND DISCUSSIONS

The industrial safety declaration is a detailed document that is created to assess the various risks and dangers that could happen in industrial facilities. It helps to prevent accidents and other emergency situations, such as natural disasters or terrorist attacks. The document also evaluates the effectiveness of security measures in place and suggests improvements if needed. According to the law of Uzbekistan about the safety of hazardous industrial facilities, there are rules and regulations that need to be followed. The government has made a resolution to approve these rules. On December 10, 2008, there was a description of how to develop and formalize a process.

At the same time, it was discovered that the Regulation and the author [1,2,4,5,6] studying the educational literature overlooked certain factors that could harm the facility's safety. The statement is made based on general rules in official papers without considering the factors caused by humans, the mental and physical conditions of employees during emergencies, and the schedule for informing employees about emergencies. These problems make it difficult for the object to do its tasks well. If there is an emergency, the object might not be able to do its tasks properly.

Also, the law says that hazardous production facilities of the first category must create an industrial safety declaration. Other hazardous production facilities can choose to create one or not. Emergency situations that happen in this category of objects only affect the local area and do not cause harm beyond that space. Write this text in simple words: [2, 6, 7].

However, there are some things that belong to a different group (hydraulic facilities, flour production companies, geological exploration, storage warehouses for explosive materials, etc.) The accidents that happen in these things are as bad as the ones that happen in the first group. In emergency situations, there can be more problems instead of fewer.

From the perspective of labor safety, it is important to enhance the way the declaration is organized. Rewrite the text using simpler language:

Based on research and expertise, the author developed a security declaration algorithm for industrial objects and recommends implementing it in all economic sectors. This was done by analyzing various documents and resources related to regulations, laws, education, and science, as well as gaining practical experience and receiving advice from experts in the field of security for important facilities in our country.

The industrial safety declaration algorithm that has been created includes the different parts shown in Figure 2.

When creating this document about industrial safety, we made some assumptions:

- comprehensive assessment of emergency situations (accident) risk and associated risks (internal and external factors);
- -preventing and eliminating the consequences of emergency situations (accidents) (continual monitoring and forecasting of sources of danger, creation of a stock of financial and commodity assets);
- to study the results of the global analysis regarding the adequacy of the security measures developed for the use of the object (making changes and additions to the specified measures depending on the situation);
- to determine the mental and other social condition of the employees and the population around the object and to determine the appropriate measures;
- provision of optimal or permissive conditions for the protection of employees' work, etc.

The title page is the first page of the security declaration and serves as a source of information necessary for document development and retrieval.

The following information is displayed on the title page:

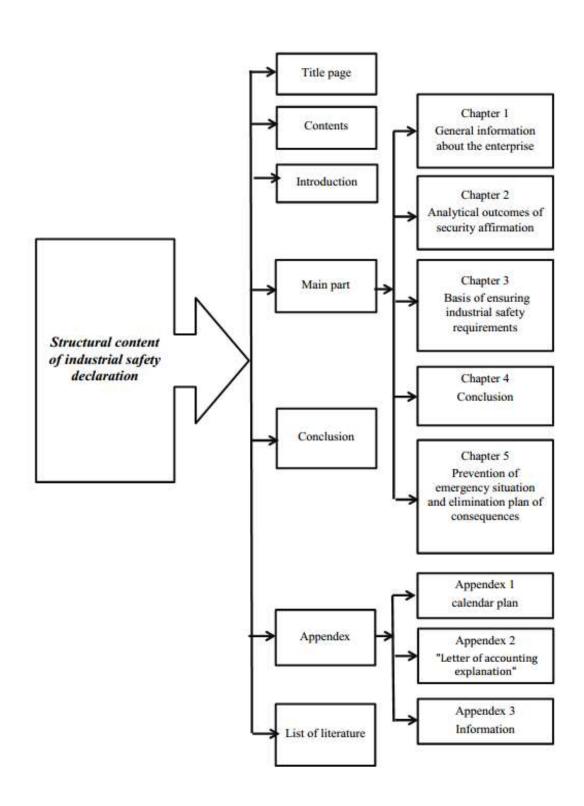
- a) The organization's leader or the customer gives their approval by placing a special mark on the security declaration document.
  - b) order number for registering security declaration.
  - v) Registration order number issued by the State Industrial Safety Committee;
  - g) the name of the security declaration, indicating the exact name of the object;
- d) registration order number of the facility from the state register of hazardous production facilities;
- e) the location of the object and the year, month, day of the approval of the security declaration.

In the table of contents, the name of all sections of the declaration, the pages where these elements begin are shown.

In the introductory part of the security declaration, the normative-legal documents justifying the development of the declaration and information about the organization's activities

Information about the organization that developed the declaration will include:

- a) This is about the organization that made the safety declaration. It has a name, address, phone number, and fax number. It also has information about getting a license or permit to do the activity mentioned in the safety declaration. This includes the type of activity and its name, the order number of the license registration, and the date it was issued.
- b) This list shows the names, job titles, and workplaces of the people who helped create the declaration.



Picture 1. Algorithm of industrial security declaration model

The main section called "General information" will include:

a) Provide your complete name, shortened name if applicable, address including zip code, phone number, fax number, and teletype information. Also, share your bank account number, details about the bank such as its name, and the name of the higher authority that oversees your organization. Additionally, include the contact information of the person in charge at your organization, including their address and phone number. Lastly, mention the first and last name of the transportation company you have declared.

Substantiation of the declaration means providing information about the normative legal documents used to create the declaration, as well as details about the dangerous and harmful chemicals, radiation, fire, and explosive substances included in it. This information helps support and explain the declaration.

- c) Information about the things outside and inside a place that can cause harm, based on where the place is located (description of the place, its boundaries, areas that are kept clean and safe, details about potential natural disasters).
- g) The information includes details about the employees who work at the place being talked about, as well as the nearby areas. This includes the total number of employees and the busiest work shift, as well as how the employees are doing mentally and socially. It also includes a list of nearby places and communities that are affected by dangerous and harmful factors, along with the number of people living there.
- d) The insurance information you need to provide is the name and address of the insurance company, along with details about their insurance licenses, amount of insurance coverage, and a list of their insurance contracts.

Part 2 "Findings from safety analysis" should include:

- a) Details about dangerous substances are considered when identifying the stated item. This includes the name of the substance, how dangerous it is, and the kind of effect it has on living things.
- b) Information about technologies includes details about how different processes and systems work. This includes diagrams that show how things flow in the technology, as well as the names of dangerous substances used and how they are handled. The information also covers how these substances are distributed in the technology and provides data on the total amount of dangerous substances present in the devices.
- v) The main findings of the risk analysis (the analysis of how accidents happen and develop, and the assessment of the likelihood of accidents).

The findings about how accidents happen and grow will include the following information:

1) the reasons for accidents and the main factors that cause them to happen and get worse.

A short explanation of the scariest accident situations.

The accident risk assessment report should include the following information:

- 1) The text is about a list of ways to calculate and assess risks.
- 2) details about how much harmful stuff there is that could possibly cause an accident.
  - 3) Facts about how many areas could be impacted by emergency situations.
  - 4) Details about how many workers might be impacted.
  - 5) Details about any harm that could happen to the item.
- 6) Details about harm or injuries caused to workers, residents, property, and the environment.

Section 3, titled "Making sure industries follow safety rules," should consist of:

This text is about providing information on how to keep people safe when using a certain object in an industrial setting.

- a list of licenses that are needed or already obtained for activities involving the use of specified facilities.
- information about how to train employees to be ready for their job and to handle emergencies.
- this includes regularly testing their understanding of safety rules and the process for hiring new employees

Information about how to control a system when designing it to meet safety rules in industries.

Information about how accidents are recorded and studied in a systematic way.

This text explains that it provides information about whether the object's conditions of use meet the legal requirements and standards.

- b) the information about making sure that safety rules are followed for industries, especially during the preparations to control and fix the damages caused by an accident.
- specific measures to localize and eliminate the consequences of the accident in the facility being declared;
  - anti-accident forces and means to ensure industrial safety;
  - composition of emergency and rescue services and other services;
- financial and material resources for localization and elimination of the consequences of the accident in the facility being declared;

- information (drawing) about the notification system (engineer-technical staff) and the order of actions in the event of an accident at the facility.

Section 4 "Conclusions" consists of the following:

- a) a broad evaluation of how safe something is, including the most serious and harmful things that can disrupt its normal functioning.
  - b) a list of actions and plans aimed at making accidents less likely.

Section 5 "Situation plan" will show a picture of the things that can cause problems for the facility and make it not work properly. In the "Situation plan," the scale calculation displays the following:

- a) boundary between an industrial area and a zone where health and sanitation measures are put in place.
  - b) Businesses, communities, areas where many people come together;
  - c) areas impacted by the harmful effects of accidents.

When making a safety report for a dangerous factory, a letter called "Accounting-explanatory letter" is added as Annex 1.

The settlement-explanatory letter for the industrial safety declaration is a document that has information supporting the evaluation of the chances of accidents happening and the effectiveness of the measures in place to prevent them. Mostly, it involves doing accounting tasks.

This is a document that provides information about industrial safety.

- a) The names of different types of organizations (like unitary, branch, etc. ) that need to be mentioned when declaring something.
- b) Details about the person who is responsible for sharing information and communicating with the public. This includes their position, last name, first name, middle name, and phone number.
- c) a short explanation of the activities involved in making and using the object mentioned:
- g) The list of dangerous and harmful things (chemicals) moving around in the item being declared, along with their main explanations.

This text is about providing a short description of what could happen if accidents occur and the steps taken to prevent them.

When accidents happen, people are told about how to tell others nearby and what they need to do.

b) Details about the person who is responsible for sharing information and communicating with the public. This includes their position, last name, first name, middle name, and phone number.

- c) a short explanation of the activities involved in making and using the object mentioned;
- g) The list of dangerous and harmful things (chemicals) moving around in the item being declared, along with their main explanations.

This text is about providing a short description of what could happen if accidents occur and the steps taken to prevent them.

When accidents happen, people are told about how to tell others nearby and what they need to do.

The person in charge of the company that has a dangerous production facility must send a safety declaration to the Ministry of Emergency Situations and local authorities within one month of getting the e-expertise report. You need to keep the original copy and the report made by an expert.

#### **SUMMARY**

The author looked at different documents, books and research about making safety declarations in factories. They found that there are enough rules and information about making safety declarations, but they don't all agree with each other. Also, not many researchers have looked at this topic. Because of this, the problems mentioned in the article still exist in the creation of the industrial safety statement.

To handle these situations, the author created an algorithm and guidelines for using the industrial security declaration model.

# **LITERATURE**

- 1. Law of the Republic of Uzbekistan "On Industrial Safety of Hazardous Production Facilities": 2006
- 2. Decision No. 271 of the Cabinet of Ministers of the Republic of Uzbekistan dated December 10, 2008 on additional measures to implement the Law of the Republic of Uzbekistan "On Industrial Safety of Hazardous Production Facilities".
- 3. Makhmatkulov N.I. Industrial safety. Textbook. Opposite: "Intellect" publishing house, 2023. p 236
- 4. Belov S.V. and others. Life safety. Textbook, "Higher School", -M.: 2009. P
- 5. Khomenko A.O. Industrial safety. Electronic educational text resource. Ekaterinburg-2018
- 6. Life safety: Textbook / Edited by N.N. Grebnevoy. -Tyumen: Tyum State University Publishing House, 2012. P 320.
- 7. Makhmatkulov N.I. Assessment of technosphere security based on mathematical modeling. Monograph Y. -Karshi "Intellect" publishing house, 2022, 133 p.
- 8. Makhmatkulov N.I. "Correct behavior of the population in emergency situations" Article. International journal of advanced research in education, technology and management. Vol.2, Issue 9.- 175 p
- 9. Maxmatqulov N.I. "Fire as a factor of technogenic disaster" Article.. International journal of advanced research in education, technology and management. Vol.2, Issue 9.- p.175