

MEASURES FOR THE DISPOSAL OF DUST AND HARMFUL SUBSTANCES RELEASED TO THE ATMOSPHERE

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Annotation: *The article describes the harmful effects of harmful chemicals released from cement factories on human health and the scientific research conducted to eliminate these factors.*

МЕРЫ ПО УТИЛИЗАЦИИ ПЫЛИ И ВРЕДНЫХ ВЕЩЕСТВ, ВЫДЕЛЕННЫХ В АТМОСФЕРУ

Аннотация: *В статье описано вредное воздействие вредных химических веществ, выделяемых цементными заводами, на здоровье человека и научные исследования, проводимые с целью устранения этих факторов.*

Ключевые слова: *гигиенический показатель, промышленные отходы, охрана природы, гигиеническое нормирование, эпидемиология, аллергия*

Key words: *hygienic indicator, industrial waste, nature protection, hygienic regulation, epidemiology, allergy*

The science and technology revolution clearly shows that the increase in social influence on the nature surrounding us has led to the increase in the influence of nature on society.

The ongoing acceleration of production processes requires the involvement of natural resources in ever-increasing amounts to the national economy. This increases the direct dependence of society on nature. During the current science and technology revolution, the opportunities for human use of natural resources will be greatly expanded. At the same time, the harmful effects of industrial production on nature and the environment will increase significantly. In the next 100 years, humanity increased its energy resources a thousand times. This allows him to have a serious and far-reaching impact on nature. The total volume of goods and services in developed countries now doubles every 15 years. Accordingly, the amount of waste from economic activity that pollutes the atmosphere, water bodies, and soil is doubling [1].

Production takes 100 conditional units from nature, but uses only 3-4 of them, and the rest is released into the environment in the form of pollutants and waste. In industrially developed countries, 30 tons of substances are extracted from nature per capita every year, of which in some cases less than 1-1.5% is consumed, and the rest often becomes waste, which is dangerous for nature [2]. The scientific and technological revolution led to the fact that, firstly,

the processes of movement of the biosphere are accelerated, secondly, new forms of matter and energy of the biosphere are introduced, which do not appear naturally in nature: thirdly, the forces and laws of nature have increasingly new directions of movement. goes away The demands of adaptation of the society in its relations with nature pose new problems to mankind, and the problems are increasingly cross-cutting.

A person uses nature to satisfy one of his needs, that is, a person uses all the resources of nature to satisfy his needs, and after satisfying his needs, he returns the resources to nature in the form of waste, and in the process changes one or more of its components. often, this process of influence disturbs the state of balance between components or within them [3]. It should be noted that at the current stage of development, the biological balance in nature is disturbed [4].

Literature analysis and method. In recent years, a whole group of previously unknown diseases have appeared and been identified, infectious diseases with their own epidemiological and practice, genetic diseases that are difficult to prevent, endocrine, allergic and toxic diseases, including previously These include poisoning-allergic diseases that are aggravated by the increase in the mass of non-toxic chemicals. Thus, the environment played an important role among the factors determining the health of the population and human development in general. If conditions are created to improve and strengthen health, its effects can be digested [5,6].

Harmful substances released from factories during cement production are mainly dust-gases and dust-films [7]. They have a negative impact on the health of flora, fauna and population. Therefore, cement factories are obliged to comply with environmental protection laws and install equipment that captures or removes harmful substances [8]. The first table below shows the main composition of harmful waste emitted from cement plants.

Table 1
Environmentally harmful waste from cement production enterprises

Pollutants	Quantity (t/year)	in percent (%)
Cement dust	13.29	47%
Ulerodic oxide	6.384	23%
Nitrous oxide	2.0047	7%
Hydrocarbons	0.932	3%
Inorganic dust	0.87	3%

Harmful substances released from cement factories can be different, but mainly they are: Dust-gases - They are released from fuel and heaters during the cement production process [9]. Dust-gases contain oxidizing, alkaline and organic substances. They destroy the ozone layer, oxygen levels and cause an increase in the number of diseases among the villagers living around the cement plant [10].

The Ministry of Ecology, Environmental Protection and Climate Change announced several measures aimed at strengthening environmental control over cement production in Uzbekistan [11]. They include introducing a moratorium on the construction of cement plants, increasing the amount of fines for environmental damage to cement plants up to 10 billion soums, banning the placement of cement plants near populated areas and protected areas,

making it mandatory for cement plants to undergo environmental expertise, new cement plants including the implementation of steps such as technology transfer and incentives for the production of high value-added products [12].

Results and discussion. In order to study the effect of the cement production plant on atmospheric air, it was carried out based on the inventory data of pollutant and waste sources. The main sources of release of harmful substances and waste have been identified. The volume and intensity of emissions of harmful substances were determined by the calculation method both in the working building and in the atmospheric air. It takes into account the brand of the equipment used in the technological process, the mode of operation, the consumable raw material and its type. In the course of work, 14 types of harmful substances are released into the atmosphere in the amount of 118.706715 t/year. Untreated emissions into the atmosphere from all sources are 28.012715 t/year of pollutants, of which solids account for 15.1516 t/year or 54% of the total gross emissions, gas and liquid wastes account for 12.861115 t/year or 46% will come.

Conclusion As a result of our scientific research, it was found that the spruce tree has the ability to absorb the harmful elements released from the cement factory and clean the air. We can see in the voltammetric test report of the sanitary-hygiene laboratory of the young spruce that was planted near the cement plant shown in figure 1 and in figure 2 for comparison, juniper planted many years ago.

Planting and propagation of spruce trees around cement production plants has a positive effect on the lives of people living near the plant and contributes to the cleanliness of the environment in our scientific research.

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