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ANALYSIS OF THE REQUIREMENTS OF THE SPINNING ENTERPRISES OF UZBEKISTAN AND THE WORKING CONDITIONS IN IT

Gafurova N. T., Xo'jayeva M.E.
Bukhara Institute of engineering and technology, Uzbekistan
E-mail: gafurova140270@gmail.com

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Abstract:

This article investigates the current state and future prospects of spinning enterprises in Uzbekistan, with a particular focus on labor conditions. The study explores various aspects of the spinning industry, evaluates existing labor conditions, and provides recommendations for improvements. Using a combination of literature review, field studies, and statistical analysis, this research aims to provide a comprehensive overview of the challenges and opportunities facing Uzbekistan's spinning sector.

Keywords: Uzbekistan, spinning enterprises, labor conditions, textile industry, istqibol, occupational health, industrial analysis, labor improvement.

In recent years, as a result of consistent reforms on the modernization and diversification of agricultural production, the development of the product processing industry, a new system of activity in the agrarian sector — the cluster method-has been introduced [1].

The decree of the president of the Republic of Uzbekistan "on measures to regulate the activities of cotton-textile clusters" dated November 16, 2021 PF-14 sets out measures " to further improve the activities of cotton-textile clusters, to increase their role and responsibility in the effective use of agricultural land, to widely introduce market principles to ensure the benefit of the [2].

It is also planned that the clusters will implement 378 projects with a value of 33.6 trillion soums in order to develop the industrial sector over the period 2022-2025, creating 129.3 thousand new jobs.

It should be said that the Republican cluster system was introduced in 2017, and on the basis of the decree of the president of the Republic of Uzbekistan dated May 19, 2017 "on measures to establish a modern cotton-textile cluster in the Bukhara region"PQ-2978 "BCT cluster" LLC QK and on September 15, 2017 "on measures to establish a modern cotton-textile cluster in the Syrdarya region"PQ-3279 on the basis of "Beck cluster" LLC qk cotton-textile clusters were established on an experimental basis.

During the pilot period, these clusters recorded a high result. This paved the way for the number of cotton-textile clusters to reach 16 in 2018, 77 in 2019, 99 in 2020, and 122 clusters from the 2021 crop, 134 in 2022, and clusters to cover 100 percent of existing cotton fields in the Republic [3-5].

Information on the structure of cotton-textile clusters and freely operating spinning enterprises in the Republic of Uzbekistan [6]

1.1-Jadval

Name of provinces	Andijan province	Bukhara region	Jizzakh region	Kashkadarya region	Navoi region	Namangan province	Samarkand region	Surkhandarya region	Sirdayo province	Tashkent region	Fergana province	Xorazm viloyati	Republic Of Karakalpakstan

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Number of spinning enterprises:	12	8	5	9	2	7	11	6	6	6	9	10	5
Total:	96												

Using the above data, when analyzing the statistics of the total number of workers working at BCT cluster LLC: of the about 1,000 employees operating in the enterprise, 175 are accounted for by spinners and 77 by weavers. This was found to make up 70% of the spinners and 30% of the weavers.

The number of spinners in about 100 spinning enterprises in the total Republic is about 20,000 employees when calculated by the number of spinners in BCT cluster LLC. This indicator is perceived as the volume of consumers in the later stages of the study.

When conducting research work on the creation of special clothing for spinners, the need arose to study their working conditions. Spinners, numbering approximately 20,000 in the Republic, are required to study factors such as movement types, physical strain rate, air temperature in the building, humidity, speed, and dust and noise over an 8-hour shift.

From the point of view of organizing favorable working conditions for a large number of spinners, it is necessary to consider the factors for optimizing their working conditions.

There are the following factors that create comfort labor activity of workers:

- optimal climatic conditions;
- workplace organization;
- Technical Aesthetics;
- rational light [7]

Comfort covers a number of indicators that include conditions. They include anthropometric, hygienic, physiological and psychophysiological, as well as indicators. Among them, hygienic indicators depend on the level of light, ventilation, air temperature, humidity, pressure, noise, vibration, electromagnetic radiation and dust in the building, which ensure the optimal working capacity of a person [8].

Depending on this, comfort conditions in the building cause the temperature, humidity, speed of the air in it, the comfort condition of the worker [9].

According to the "sanitary and hygienic norms of the microclimate in production enterprises" dated May 24, 2006 No. 0203-06, the activities of workers in a spinning enterprise can be included in the category 1B, since spinners sit, stand, walk and face physical exertion during the period of their activity during the shift [10-11]

According to this norm, based on the humidity and ventilation of the air temperature in the building, their optimal and acceptable indicators are explained as follows:

- Optimal microclimate conditions are the preservation of a person's health for a long time and in the duration of systemic exposure.
- Acceptable microclimate conditions-this can lead to temporary and rapidly normalized changes in the thermal state of the body with prolonged and systemic exposure to a person, in which no health problems arise, but with heat discomfort, decreased activity, decreased attention and performance are observed [12].

Microclimate indicators in spinning enterprises and for workers

Table 1.2

Season	Necessary norms for a spinning enterprise and a worker	Category	Air temperature, ^{0}C		Air humidity, %	
			Optimal	Received	Optimal	Received
In the cold perio	For spinning enterprise [14]	1b	21-23	24	40-60	75

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	For the working body [14]		20-22	18-24	30-35	40-60
In the heat of the year:	For spinning enterprise [14]	1b	24-26	31	40-60	65
	For the working body [14]		22-25	20-28	30-60	65

Based on the indicators of Table 1.2 above, the presence of a difference in perceived humidity, although the indicators necessary for the climate and worker in the building are close to each other in terms of air temperature, the reason negatively affects the health of workers [13-14].

From the climatic indicators at the spinning enterprise, in addition to air temperature, humidity and speed, the effects of dust and noise are also observed. Dust in the building air negatively affects the eye, skin and respiratory tract of the worker [15].

Dust in the building exists in two forms, divided into organic and mineral dust. While organic dust is separated from the fiber, mineral dust is made up of the soil found in the fiber [16-17].

According to sanitary hygienic norms 1.2.3685-21, high humidity and high temperature together increase heat loss, which in turn can lead to overheating of the body. Staying in such conditions for a long time can lead to cardiovascular diseases, respiratory problems, diseases of other organs and systems.

For the microclimate of residential and public buildings in the warm season, the following are considered optimal: the air temperature is 22-25 °C, the relative humidity is 30-60%, the air speed does not exceed 0.2 M/s; in the cold season, these indicators are 20-22 °c, 30-45% and 0.15 m/s, respectively.

However, depending on the type of activity, time of year and climate zone, the regulatory requirements for microclimate parameters in the workplace may differ [18-19].

Majidova M.SH.according to the research carried out by, the increase in air temperature in the main workshops of the textile factory is explained by the release of a large amount of heat in the spinning and weaving process. This occurs as a result of converting the mechanical energy of spinning and weaving machines into thermal energy.

Also, the processing of cotton fiber is accompanied by the release of dust, the largest amount of which is observed in the processing of cotton in the spinners and combers in the preparatory workshops of spinning and weaving factories. For example, the amount of dust in the air in the blower Tsex ranged from 4 to 6.8 mg/m3, and in the comb shop from 4.0 to 8.5 mg/m3. The powder content in spinning workshops is 2.68 mg/m3, in textile workshops 2.0 mg/m3 [20].

The concentration of dust in the air of the working zone in all areas of the studied objects was determined in accordance with the norms of GOST 12.1.005-88 SSBT "general sanitary and hygienic requirements for the air of the Working Area" and. Hygienic standards "0294-11", the maximum permissible concentration of harmful substances in the air in the workplace according to hygienic standards 2.1.6 1338-03, the maximum permissible concentration for ordinary dust particles in the air is 0.5 milligrams per cubic meter of air [21-22].

Based on the scientific research provided above, it is concluded that the norm of the amount of dust in the air from sanitary and hygienic indicators is set at 0.5 mgr/m3, but the amount of dust studied at the spinning enterprise was 2.68 mgr/m3, which is five times the ratio to the norm;

When the mechanical energy of spinning and weaving machines is converted into thermal energy, an increase in air temperature and humidity is observed;

Noise amplification occurs as a result of the influence of a large number of scattering and comb units and spinning machines, movable, rod and gear mechanisms of weaving machines, as well as due to the internal part of the enterprise's transport;

In order to improve and improve the efficiency of working conditions at spinning enterprises and maintain the health of workers and prevent occupational diseases, it was determined that IHV-special clothing for spinning workers is needed.

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