

LABOR HYGIENE IN LIGHT INDUSTRY

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Abstract: The raw material for Spinning Mills is cotton fiber. Cotton fiber is imported from factories. The cited fiber is sent to the sorting shop. Here, traction machines operating in special automatic conditions are installed from 10-11 units. Once the fiber is inserted into the machine, the fiber printed there is shaken. In the process of grinding, the dust contained in the fiber plant residues are also cleaned and removed. The titib is transmitted to the cleaned fiber combing machines. These machines came out in a car in the form of a combed fiber coil, combed in fine networks after having previously roughened in two stages.

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Issues of working conditions and health of workers in knitting enterprises: - the network of enterprises of the knitting industry includes enterprises that make fabrics from cotton, fur, silk, linen and artificial, synthetic fibers. - In the conditions of Uzbekistan, there are enterprises for the production of yarn and silk fabrics, which are the most common. Because in the Republic there are enough raw materials for the preparation of these fabrics.

The technological process in these enterprises is the basis of the technological processes of enterprises for weaving fabrics from linen, hemp and other fibers. Enterprises for the preparation of yarn fabrics (combines) are made up of three independent enterprises (factories). These are spinning textile and finishing workshops or factories. If all three components are placed on the territory of one enterprise, this is called textile combines.

Each can also be in the form of factories in a separate independent state. Especially now, in connection with the opening of various small private, joint, Joint-Stock enterprises on the territory of the Republic, the number of such independent workshops and factories is increasing.

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A wide small tape is passed through the making machine and divided into certain necessary parts. The tape is transferred to a spinning machine with a narrow coil, located in cylindrical containers. In spinning machines, a narrow pin is spun into a thread in a twist-twist fashion.

The finished thread is transferred to sewing factories. In sewing factories-are prepared for knitting yarn. To do this, the thread is re-twisted into special lugs, and then directed to the "slitting" - finishing machine. In

this machine, the threads are mainly transferred from a special mixture (starch, distrin, antistatic, technical oil, etc.), in which the gauze falls lengthwise. The thread that absorbed the mixture was spun from the range of hot drums. passed and dried. The drums are heated with hot water vapor. dried, trimmed thread knitting boards are rolled into batons, just like the one presented above, a transverse thread (moki, thread) is also processed and rolled into a small reel. Before placing long threads on a sewing machine, one thread is passed through large holes that are fixed to a separate machine. The reel is mounted on sewing machines with a tape through which the thread is transferred. If there is an unfinished thread on the countertop. a new thread is connected to the previous reel threads, each separately. After the long thread is installed, it is also installed on the reels in a special device on the countertop. The Workbench will work in a bootable and automatic order when ready. If the thread is disconnected during the weaving process, the machine will stop automatically and the alarm light will light up.

The Weaver who sees this eliminates the flaw will trigger the Loom. The spilled fabric is wrapped in a special countertop reel. When the reel is full, it is taken from the cart from the machine and sent to the inspection site. On the inspection plot, each reel is installed on a special countertop, and the fabric in it is inspected from beginning to end. If there are cases when the stain, the thread is disconnected, this part is cut and removed.

The measured and inspected fabric is shipped to the warehouse. Woven fabric is transmitted to finishing and dyeing and flower printing factories. In these workshops, the raw surp is initially cleaned of the fiber and Moss present in the surface.

The cleaned fabric is transferred to bleach.

Bleaching work is carried out to remove any remaining slime on the fabric surface, removing oil stains.

This process is performed in stages below:

1. Holding the fabric in a solution of hydrogen peroxide chlorine lime or calcium and sodium hypochloride in water;
2. In special containers, hold the above chemicals for 3-4 hours to achieve their full effect;
3. Washing in machines;
4. Retention of sulfuric acid in solution;
5. Washing the fabric;
6. Drying;

All the above processes are carried out by means of mechanisms. After the bleached cloth is washed in detergents, a white or dyed floral printed cloth is made from it, washed , then dried and drained. Currently, there are also complete automation units for painting work. These aggregates automatically carry out all processes in series. When performing work in such a way, the number of workers is also sharply reduced. The dyed cider cloth is shipped to the oiled consumer.

Those intended for flower printing are sent to flower printing shops without being stocked. Flower pressing on the fabric is carried out in two different ways:

- the oldest ancient method, pressing flowers in the Ashes.
- flower pressing on machines.

The dyed cloth is washed several times in clean water, then dried and drained. Currently, there are also automated aggregates full of painting work. These aggregates automatically carry out all processes in series.

When performing work in such a way, the number of workers is also sharply reduced. The dyed cider cloth is shipped to the oiled consumer.

The method of flower printing on machines is used in all enterprises. To do this, the future flower or the future flower is lowered by graving the pattern into metal shafts. It will consist of several Valls. Since it consists of several parts and colors through each, paint solutions of the desired color are placed in special containers under the shafts installed on the flower printing machine. Vall circulates and touches this paint and is applied to the Sathi. Printed on fabric.

The fabric on which the flower is pressed is dried and transferred to the ocher (aperslite). The tempering process is also carried out to large capacities. A cloth is placed inside the container in a water solution of starch and glue. After a certain time, it is dried and ironed. These works are also carried out in special aggregates.

Technology in textile enterprises processes and applied raw materials, machine tools and devices, chemicals create specific working conditions at each stage. The leading factor in Spinning Mills is dust and noise.

There is an influence of these factors at all stages of the technological process in these workshops.

To do this by spraying water drops in the work installed on the workshop, water is released under pressure on the sprayers installed on the water pipes. The discharge is carried out at an altitude of 2.2-2.5 m above ground level, directed towards shunga. The water used should only meet the drinking water requirements. Re-application is prohibited.

Air humidity is constantly monitored. If the control is not carried out in time, it will lead to increased air humidity. The microclimate conditions in painting flower print shops also have special properties. Because in the technological process in these workshops, hot water and paint solutions with a temperature of 75-850 C are used. This causes high humidity to be released into the sex air in its place.

Water vapor in the air also comes out of the washing, painting, drying device line, due to the violation of the density of pipes and bolts that bring hot and water vapor to the machines.

The air temperature in these workshops is also higher in some cases. Increased air temperature (up to 32-330 C), increased relative humidity (75-80%) have a negative effect on the thermal state of the workers.

Leading factors in textile industry enterprises include noise, noise is mainly broad spectrum (300-4500 gs). Its level is 85-90 db in spinning workshops, there is also an effect of general vibration in textile workshops. Even if its intensity is in hygienic standards in most cases, its combined effect with other factors can lead to negative consequences.

Textile workshops have a 105dB noise of general vibration. The noise intensity depends on the number of machine tools to be placed in the rooms and the effectiveness of countermeasures.

Among the physical factors, it is possible to show spinners and weavers the physical strain that occurs when they spend 85-90% of the working day standing and walking, passing. Studies conducted have shown that spinners travel 6-7 km during the day, and tailors travel 9-10 km. The reason for this lies in the fact that each worker manages several jobs at the same time.

Among the leading factors in the dyeing and flower printing factory of textile enterprises, it is necessary to indicate the chemical factor.

The main sources of the chemical factor are bleach (hypochlorides, hydrogen peroxide), aniline and diazo dyes, acids, which are used in this technological process. Chemicals that go into the air of painting or flower print shops are chlorine, gas aniline vapor, nitrogen oxides, etc.

It should be noted separately that in dyeing workshops, the effect is observed not only through high air, but also directly through the skin.

Make bleach solutions paint and use them.

Analysis of the incidence of workers of textile industry enterprises shows that the leading places are occupied by colds. The reason for this is the uniformity of the microclimate in the workshop (heating and high humidity), the tension of thermodynamic processes, the high amount of dust in the air, the presence of conditions for the spread of air droplet infection;

- The second place is occupied by diseases of the digestive system (10-16%). In third place are inflammatory diseases of the skin (10-11 %). The fourth place is occupied by lesions.

The first place (26-29%) in painting and floral print shops is occupied by the cardiovascular system, while the second place is occupied by colds. The main directions of wellness measures in textile enterprises.

The main task of the doctor of Labor hygiene is to carry out control over moisture and develop these conditions, which will create unruly working conditions for workers at production enterprises.

Since the enterprises of the textile industry consist of the sum of various specific technological processes, the wellness measures carried out at these enterprises are also unique. A full-fledged implementation is carried out at the stage of State Sanitary supervision, which warns control over health work, and they include:

- Proper placement in the choice of land for production, especially flower printing factories, in relation to enterprises that produce habitat and other air-damaging factors;
- the correct placement of enterprises in the ground area is the correct placement of shops in the building.

In the introduction of new technological process and technological materials:

- introduction of protectors and external environment in design and construction;

At the stage of current state sanitary control:

- The presence of anti-dust measures (local air intake , ventilation , respirators for airway protection, thinners);
- the presence of anti-noise measures (replacement of locally available appropriate countertops to the deck. This leads to a decrease in the noise level in the working areas by 15-20 db, covering the room ceiling and walls with a noise-absorbing layer, using antifons.);
- the anti-vibration measure is in the process of effective placement of measures , the installation of special vibration attenuators (shock absorbers) under the countertop;
- in the fight against the chemical factor, first of all, the paint must be performed in rooms with a separate special equipment in the preparation process (air-tightening cabinet type of local air-carrying valve) ;
- in the case of niongip in painting devices ,it is advisable to use air pullers if there is no air puller from the side. Of course-ventilation, which brings general air into the room, is also installed.

Positive air should not be allowed to form inside such workshops. Because this condition causes the chemical to spread the substances to other rooms:

- in order to resettle the Metereological conditions to optimal or permissible conditions , general air replacement ventilation in spinning and textile enterprises (special preparation of air-compressed air gives a good effect.)

And in painting and flower print shops, in the fight against high humidity with a relatively high air temperature, the following should be used:

- to ensure the density of pipes and bolts of hot water and water vapor in the first row, the local air-bearing Valve is installed in two parts, dry air at a high level of 27-300 C is supplied under the ceiling, which quickly absorbs the rising steam. The latter is installed lower (2.5-Zm above the ground), from which air in the indicator is supplied, suitable for hygienic demand. And the general air carrier is installed on the ceiling of the building.
- Organization of lighting suitable for hygienic places on work surfaces;
- in addition to the above technical technological and San-technical measures, medical preventive measures are also carried out. These are personal protective equipment (resperators, combinator, rubber ashtray, apron and other) developers UzRSSV 06. On the basis of order №300 from 06.2000, timely conduct of medical examinations, Organization of special rooms in the structure of household service rooms, Organization of ingalyasiya, if the workshops are located in rooms without windows Photorealists equip.

Issues of working conditions and health of workers in sewing enterprises. Among the light industry enterprises, the most common are sewing enterprises. Nowadays, such enterprises are mainly in the form of joint ventures and private enterprises of various joint-stock companies.

- No matter what jurisdiction the enterprise has, the technological processes in them will be the same. The initial stage of the technological process is the use and measurement.

The implementation of this work is called the preparatory stage, the fabric is installed on a special countertop and inspected in its entirety. To do this, the fabric is moved from the ost Part according to the illuminated line (slope or horizontal). In this case, the part with the existing defects on the fabric surface is cut off.

- Spreading the fabric on the crimping table is carried out manually in two working tools.

Currently, this work is also being implemented by means of a mechanism. When the fabric is written on the Keragicha layer, the andaza is lowered into it. This work is carried out in two ways.

- draw the template by drawing the circumference using chalk (template) put on the cloth bar;
- on a monolithic fabric (klyonka), the outline of the template will be perforated and lowered, this monolithic template will be closed on the fabric surface, and each bag of round holes will be upended (with a mixture of mel and paraffin on the gauze), in which the future wear contour will fall on the fabric.

In the methods made to the fabric layer, the template performs the work of bending after lowering. For this, two types of scissors are used. The first are tensile electric scissors , the second are electric scissors with an inpatient tape. Joint scissors are cut into large pieces, while on ribbon scissors small pieces are cut.

Each handle of a cropped garment is numbered on machines or by hand. The purpose of this is to ensure that all the details of the garment are from one line.

Cut and prepared parts are transferred to sewing workshops. Nowadays, in large sewing workshops, the processes of sewing clothes in large quantities are carried out by the conveyor method. At the beginning of the conveyor, The Complete future collects clothes and puts them on the conveyor belt. The conveyor is arranged in series by the tailors, each carrying out a technological operation that he or she will have to perform and transmitting it to the next tailor. Ready-made clothing is inspected and transferred to ironing, ironing is added.

Ready-made clothes are sent to the warehouse. Each stage of the above-mentioned technological process is carried out under specific raw conditions. The leading factor in the preparatory workshop is dust, forced state and tension of the body. The main source of dust is the fabric that moves along the construction countertop. The amount and chemical composition of dust directly depends on the fabric being treated.

The amount of dust in the air when using yarn, fabrics, linings is 4-5 mg/m³, while in the use of synthetic fabrics reaches 2-3 mg/m³. As soon as the movement of the fabric stops, the release of dust also stops. The bulk of the dust is organic matter and is decomposing aerosols. Since the main work of the handler is related to the observation of the fabric, it is done in a sitting position. This results in tension in the back lumbar muscles. When performing work, the eye analyzer performs the main task.

In Beech workshops-working conditions are recorded to the extent that the road burns mainly on all indicators. These are dust, physical strain Beechers all performed by means of steep motion. The numbering of the details of the dress is performed in a sitting position, the performance of which is characterized by monotony. Because the work operations performed do not exceed 2-3, the time between their return is 2-3 seconds. The leading factors in sewing workshops are: noise, forced working condition of the body. monotony, local vibration. Dust, microclimate, chemical factors. The main sources of noise are machines that perform various sewing operations used in the shop (straight stitch tailor, overlock petlya opener, button tie, flower tailor, etc. Studies conducted show that the noise intensity in the workplaces of tailors is 90-95% dB A. The maximum energy of sound comes, the net to high frequencies.

Performing work on sewing machines requires the body to be in a certain forced position, so that 70-75% of the tailor's day is in a sitting position and leaning towards the body front. This condition causes the back leg muscles to have a static state at most times, in contrast to physiological states. In the organization of the work of tailors, the conveyor method is mainly used. For this reason, it performs only the same operation during each day. This leads to monotony of the work to be done. There is also monotony of working conditions in sewing workshops. For this reason, it creates a state of monotony in the body of workers. The local source of vibration in the workplaces of tailors are fabrics that run machines. The vibrations generated from them do not exceed their standards. The use of fabrics causes the formation of dust.

The amount of dust in the air was determined at an interval of 1.2-1.5 mg/m³. The air temperature from microclimate indicators in sewing workshops will be higher than the optimal indicators in the hot period of the year, the reason for this is the fact that there are a lot of people in the workshop at each time and various ironing works are used without interruptions. The ironing process is carried out by evaporating with water vapor. In the process, a certain amount of water vapor is increased into the air. Another source of water vapor emissions into the air is water vapor sex which leads to cases of air humidity exceeding the norm. Modern sewing technology assumes the use of synthetic fabrics in certain parts. This is the process of attaching the fabric to the main fabric. This causes the release of phenol, formaldehyde, into the air.

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