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# ASSESSMENT OF THE SEVERITY AND INTENSITY OF WORKERS IN THE MAIN PROFESSIONAL GROUPS WORKING IN PRODUCTION "K.N.PLASTPRODUKT"

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**Key words:** *harmful working conditions, labor severity, labor tension, signal density, working position, static stress.* 

**Purpose:** To determine the working conditions of the main professional groups of the working enterprise for the production of plastic products "K.N.PLASTPRODUKT" on the basis to Sanitary rules and regulations of RUz No. 0141-03 "Hygienic classification of working conditions according to indicators of hazards and hazards of factors of the production environment, severity and stress of the labor process."

**Results:** According to Sanitary rules and regulations of RUz No. 0141-03, the working conditions of freight forwarders of the plant for the production of plastic products "K.N.PLASTPRODUKT" belong to the permissible, i.e. 2 class (2), working conditions of control assistants, accountants, operators of extrusion machines and foundry on the basis of timing observations taking into account the severity of the work process, the work pose, the number of stereotypical movements of hands and fingers, as well as labor intensity, accuracy of work, density of received signals, level of visual work and performance of similar operations belong to "harmful" 3 class, 2 degree (3.2).

**Conclusions:** The impact on working enterprises of unfavourable factors of working conditions, severity and tension of the labor process, can lead to the development of fatigue in the dynamics of the working day and a decrease in the efficiency of employees.

## Introduction

In the modern world, global environmental problems are associated with the growth of the disease, the reduction in human life expectancy is associated with the number of inhabitants, as is the case with the economic and production of human activities. In the development of new synthetic materials on the origin of ecological

problems do not have an inseparable link with nature. In the production of these, the use of various poisonous monomers and catalysts is observed, the formation of wastewater and gaseous wastes. And when neutralizing these, it requires energy costs. [1, 4].

Achievements in the field of Chemical Technology and processing of plastics, elastomers and composite materials have a significant impact on the acceleration of scientific and technical development in various fields of Science and production [3, 6]. Polymer and composit processing and production of modern technologies cover a wide range of technological processes. They include technology of plastic masses, technology of processing

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of plastics, technology of elastomers, technology of production of rubber products, technology of composition materials.

Plastic is a resource, it is a substitute for materials that are usually used in the production of various natural items in a large amount of valuable storage, usually its cost is cheap (it can be used in processing and secondary raw materials). Therefore, now the demand for it is growing. But in their production, harmful and dangerous factors affect the workers ' organism. This in turn leads to a decrease in labor activity and job productivity, as well as the emergence of morbidity in workers [2, 5].

The purpose of the study: to determine the qualitative and quantitative description of factors of production with an assessment of the indicators of harmful

and dangerous factors of labor conditions of workers in the enterprise according to the " Hygienic classification of working conditions according to the indicators of harmfulness and danger of factors of the working environment, the severity and intensity of the labor process " (SanQ and M No. 0141-03).

**Material and methods:** for the purpose of studying the work experience of the workers during the working day and the intensity of the work, frequent repetitive work, the speed of the main and additional work, a chronometer observation was carried out for 3 days in 10 different professions. Taking into account the severity of labor in workers at the "K.N. **PLASTPRODUKT** " enterprise, the working condition of workers was assessed by the number of migrations in space, stereotyped movements of hands and fingers during the working day. The cut of the working depends on the accuracy of the work performed, the intensity of the received signals, the level of work performed using the eyes and the uniformity of the operations. The results obtained were evaluated based on the "Harmful and dangerous indicators in the production environment, the weight of the labor process and the acuty" SanQ and M No. 0141-03.

**Discussion:** the above-mentioned inspections allowed San QandM  $\mathbb{N}$ 0141- 03 to allocate the weight and rigidity of working conditions in the main professional groups, in accordance with the "Harmful and dangerous indicators in the production environment, the weight of the labor process and the acuty" on the production environment. In the production environment of the work process, the following parameters were taken into account: touch, emotional loading, their monotony, mode of operation. And the indicators of the weight of working conditions are based on the assessment of working conditions, depending on the technological process, taking into account the mass of the load that rises during the working day, the state of work, the amount of stereotyped movements, the state of bending of the body, the movements in the workplaces.

Employees of the plastics manufacturing enterprise are head assistants, accountants and forwarders. Supervisors and accountants are mainly in charge of office work processes. Forwarders provide the production process with raw materials and other necessary stationery, office equipment. Those who are in direct

contact with harmful and dangerous factors in the production of plastic products are extrusion machine operators and foundry workers.

The work performed by extrusion machine the operators on energy consumption falls into category 2 "b". During operation, operators lift and move the loads weighing up to 25

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kg. The static strain is 69,000 kg per second, the number of bends per day shift is 100, and the number of movements in space is 2 km, while in working condition. By the intensity of the work: to solve the simple tasks according to the instructions in the work process on intellectual stress, to receive the signals with corrective activities, to perform the tasks and control them during the work. The workers focus on the main work up to 6% of the working day. The signal density is up to 75%, the number of simultaneous observations of production facilities is 4-8. The casters have a degree of responsibility for basic work, the monotony of work is higher than 10, the number of simple production operations or repetitive operations is more than 100 per second. The time of passive observation during the technological process is 75%. Working time is 8 hours, work shift is 2 shifts. The working conditions of extrusion machine operators belong to the class 3, degree 2 (3.2).

The next group of professional activities falls into the category 2 "b" of work

on energy consumption of foundries in the foundry. During working process, the operators lift and move loads weighing up to 20 kg. The static tension is 69,000 kg

per second, the number of bends in the working day shift is 100, the number of movements in space is 2 km, while in working condition. By the intensity of the work: to solve the complex tasks in a series of instructions during the work process, to receive the signals with real-world values, to perform the task control and processing tasks. The workers focus on the main work up to 67% of the working day. Signal density is up to 40%, the number of simultaneous observations of production facilities is 4-8. The casters have a degree of responsibility for additions, the monotony of the work is higher than 10, the number of simple production operations or repetitive operations is more than 100 per second. Passive monitoring time during the technological process is 75%, active process time is more than 20%. Working time is 8 hours, work shift is 2 shifts. The working conditions of the foundries in the foundry are class 3, degree 2 (3.2).

The workers focus on the main work up to 67% of the working day. Signal density is up to 75%, the number of simultaneous observations of production facilities is 9-15. In accountants, the size of the object performed by the eye is 5 mm, the number of observations on the video-thermal screen during the shift is 6 hours. Accountants have a degree of responsibility for the main work, in the monotony of the work they perform receptions with a number of re-submission operations of 6-9. The number of complex operations is 25-100 per second. The active process time in production during the technological process is 75%. Working time is 8 hours, work shift is 1 shift. The working conditions of accountants belong to the class 3, degree - 2 (3.2).

The work on energy consumption of head assistants in the enterprise falls into category 1"b". The mass of the lifting load is 15 kg. During the working day, the number of bends is 30 times, they work in standing position, the number of movements in space is 2 km. The focus of the workday is 65%. The signal density is up to 75%, the number of simultaneous observations of production facilities is 4-8. In the leader assistants, the size of the object is 5 mm and the number of observations on the vidioterminal screen is 2 hours. The strain duration to the hearing analyzers is 91-100%. Supervisors have a degree of responsibility for the main work, the number of repetitions in the monotony of work is 6-9, the number of complex operations is higher than 100 per second. The active process time during the

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technological process is 75%. Working time is 8 hours, work shift is 2 shifts. The working conditions of supervisor assistants belong to the class - 3, degree - 2 (3.2).

**Conclusions:** Summarizing the above data given, the following conclusions can be drawn: according to the "Hygienic characteristics of working conditions on harmful and hazardous factors in the production condition, the intensity and severity of the work process", the assistant managers, accountants, extrusion machine operators the working conditions of the founders can be described as "harmful". It is the fact that the degrees of the main or leading harmful factors in the production condition are higher than the permissible norms and there is an inappropriate effect on the workers organism, these types of work can be assessed as Class - 3, degree - 2.

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