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The innovative security model of the personnel for hazardous production facilities and psychological problems.

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*Summary. The results of the research activities of the operators of modern and dangerous industrial complex have been made. Substantiated innovative model evaluation of staff worked out. The methods of improving the efficiency and correctness of work of operators remote are presented .*

*Keywords: integration model the safety of hazardous production, physiological, psychological, problems.*

Statistics of accidents and incidents were connected to human error at hazardous production facilities in the world from 15 to 60%. Analysis of the causes of errors showed most of them are related to personal qualities , lack of training. The study of the personal factor in the problem of accidents has shown that an important element is the willingness to security activities that appear in the "man - equipment - environment". Therefore, consider the person in this integration model should be work together with all kinds of industrial relations, including such as information and process control.

However, the assessment only personal psychological characteristics do not provide a complete picture of the mechanisms of formation reactions and mostly does not answer the question of finding and justifying the ways and methods of adaptation of the personnel to adequately fulfill professional goals and how to prevent occurrence of adverse conditions such as the syndrome of monotony .

Objective: psycho-hygienic substantiation, technology development of safe work and health preservation . The object of study - the staff of the central control office a large and hazardous industrial facility .

One of the main tasks was to psychological and physiological basis of optimum modes of work and rest of the staff under heavy tension, monotony environment and labor process, the development of preventive measures for the restoration of body

functions during the working shifts. Studies were carried out during the work shift directly in the workplace personnel. Operators in the Group were 25 people. The studies were conducted in day and night shifts.

We used physiological, psychological, and statistical methods. An assessment of health personnel was in accordance to the periodic medical examinations for three years.

Completed studies have shown that in the process shifts the burden felt special cardiovascular and the nervous system. Significantly decreased the amount and stability of attention, revealed some increase in the number of errors.

Thus, the intensity of the work by the end of the work shift led to a decrease in efficiency was about 30-50 % of the initial level, it is possible that the developing fatigue may increase the likelihood of erroneous actions. However, the high degree of responsibility for the outcome have been with production activities, the focus of mental functions to perform processing tasks, the inclusion of willpower leads to the activation of attention, concentration, focus personnel actions. Thus, the results investigations revealed variations in health status of personnel associated with industrial activity.

On the basis of the research we have developed innovative methods and technologies to improve the efficiency of error-free operators of complex manufacturing systems, which includes the decision of optimization work environment, ergonomics, designs, work and rest. The introduction of this technique is designed to optimize the work, increase the efficiency of the operators. In addition, our study showed that subsequent research should focus on the development of health-saving technologies that will ensure the optimization of working conditions and can be implemented in the process shifts.