

IMPROVING THE PREVENTION OF ACCIDENTS

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Increase of power, of material-economic, information potential of industrial complexes and systems observed recently, application of new energy - material - and high technologies, and also other objective reasons connected with scientific and technical progress, demand new, a fuller appreciation about an industrial traumatism various dangers of technical systems, and also revaluation of old and development of new criteria and factors of an estimation and traumatism preventive maintenance.

Modern science, proceeding from a preventive maintenance imperative, postulates a priority of preventive work, including under the prevention of the industrial traumatism, being one of the main moments of increase of safety level of existing "human-machine" systems.

For working out of adequate preventive actions for traumatism decrease it is necessary to have the authentic data in the given concrete region (enterprise, shop etc.) And during given concrete time. It is known that frequency of occurrence of a traumatism at enterprises submits to the law reminding a pyramid in the basis of which there are risks which are taking place on manufacture, further micro traumas, etc. Statistics shows that if at the enterprise there is a fatal case in its basis there is from thousand to several tens thousand dangerous conditions. It is possible to consider that the administration has not watched these thousand dangerous situations. From this point of view the incident with a deadly outcome is a natural end of above-stated "pyramid" that is its top. In the basis of this pyramid are not registered infringements, above - easy traumas, still above - traumas with temporary disability, and is closer to top - incidents with serious consequences. And, at last, there is a fatal case. It is established, for example, that one fatal case is preceded by 10-30 cases of serious traumas (differently at different enterprises), 100-300 easy traumas, 1000-3000 micro traumas and 10-30 thousand so-called dangerous factors. If at the basis of

this pyramid, at level of dangerous situations not to undertake any preventive actions, in process of their accumulation incident with a deadly outcome becomes natural and inevitable.

Thus, traumatism preventive maintenance is connected, first of all, with work of the given pyramid at "base" level that is with the normalization of noxosphere. And it rests first of all in psychological, that is, in human factor. At all evidence of the given position, in practice, there are certain complexities of its realization in connection with absence of full and absolutely trustworthy information.

And the main most difficult tractable problem in this plan is that workers of enterprise are interested in concealment of facts of a traumatism is main, or their skill conversion on less heavy as they bear for them personal responsibility. Hence, going only by the way of strengthening of the responsibility of heads, with the help of only retaliatory measures it will be not possible to reach the expected result as each fact of a traumatism opened on manufacture will be perceived by the higher head not as the positive moment in preventive work spent in division, but as the basis for punishment.

Therefore by working out of actions for traumatism preventive maintenance there becomes actual a question of working out of such models of management by labour safety at the enterprise in which the center of gravity would be displaced from procedures of external control from a higher management and control bodies towards an internal self-estimation (self-inspection) where psychological, that is «the human factor» becomes solving again.

Statistics and dynamics of accidents on manufacture and occupational diseases should be collected and analyzed carefully. However not search and punishment of guilty (and more often innocent) should be the purpose and result of such analysis, but management improvement, perfection of system of industrial safety and a labor safety. Thus, not fear should be the predominating factor, but positive motivation in actions of people. Results of a self-estimation become on the one hand the

mechanism of constant internal improvement of working conditions, and with another – can be represented as external checking for their random inspection.

One of the basic methods of self-estimation are matrix and tabular. The matrix method represents a set of qualimetric scales (in the form of matrixes) «perfection levels» by all criteria of the model, expressed verbally, from completely unsatisfactory condition to full perfection, and tabular- is spent by filling for each estimated aspect of activity or criterion of model of the table in which the estimation of level of perfection of criterion is given, to degree of systemacity and prevalence of the applied approach.

By working out of the plan of preventive actions for the prevention of a traumatism a prominent aspect is not only their list, but also ranging, that is definition of degree of weightiness of the contribution of each action in a condition of working conditions. On values of «perfection levels» criteria of Model taking into account factors of weightiness of the given criterion the integrated criterion (indicator) of an estimation of perfection can be calculated.

Thus, working out of the model improving quality of work of the enterprise in the field of preventive maintenance of a traumatism on the basis of carrying out of a self-estimation, will allow to estimate an initial condition of preventive work, to define strong and the weak parties needing improvement and to develop the adequate plan of measures under the prevention of an industrial traumatism.