

### III. PROPHYLACTICAL PROBLEMS

#### INDEXES OF DISEASES CAUSING TEMPORARY LABOUR-DISABILITY FOR EVALUATION OF PROFESSIONAL DEGREE OF WORKERS FROM CHEMICAL INDUSTRY

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The nowadays technology and complex automatization in the chemical production require working places with small number of high-professionalized and qualified workers and specialists. Labour-disability of these workers due to traumas, disease, etc. hinder the productive process. One of the most important professions in the chemical industry is that of the operator-apparator. There are moments when additional information and situations require quick reflexes and decision of the apparatus-operators with no interruption of the process of chemical production.

High level (degree) of professional security and qualification in conditions of complex technological systems means security of all components involved in the productive process. One of these components is the man himself. There are many factors characterizing the security. One important criterion is supposed to be the possibility of absence due to temporary labour-disability because it is a sudden situation for the production and the conducting of this production as well.

The object of our study was to evaluate (estimate) the complex of factors inducing temporary labour-disability, level of professional security and their influence upon the productivity in the Chemical Works, Devnya. We studied the lost days due to a disease or trauma for the recent 3 years. They are 5—7% of all lost days. The duration of labour-disability due to traumas and diseases is various for the various productions in the Works but its average value is 5,2—9,3 days. If we presume this individual loss of working days to be the normal one for chemical production it is possible to calculate the mathematical probability of lost days due to temporary labour-disability as a result of a disease or trauma. One calendar day is 0,274% from all year days. If one worker has only 1-day loss for a whole year due to a disease it means that his security will be 99,726% (100% minus 0,274%). By using the same formula we determined the professional security of the investigated group of chemical workers.

The scale of security (according to L. V. Anohin) has 7 degrees: very high, high, middle, below middle, low, very low, extremely low.

The investigated apparatus-operators for a 3-year period show either temporary labour-disability due to a single disease and trauma or due to often and long-term diseases. The analysis shows that workesrs who are not from the group of those with long-term diseases preserve a constant high degree of professional security (workers from the production of calcinated soda); almost 65% of them have the same security-index throughout the 3-year period although they show a loss of 11,92% due to chronic and long-term diseases which don't provide temporary labour-disability.

Table 1

**Characteristics of the variability of the professional security of workers from the main groups (in %)**

Groups of workers	Number of workers whose professional security is constant for a 3-year period	Number of workers whose professional security is variable for the same period		Total
		HIGHER	LOWER	
Rare illness, short duration	64,87±1,98	23,21±0,97	11,92±1,88	100,0
Often and long-term diseases	22,05±1,52	7,10±1,87	71,85±1,54	100,0
Average for all workers	54,15±1,29	13,90±1,21	31,95±1,61	100,0

Based on the method for determination of individual professional security of the chemical workers (apparatus-operators) it is possible to select the new-coming workers concerning their own security by analysing their medical file for the recent 3 years before coming to the Works. The temporary labour-disability and the results from the prophylactic examinations in his medical file will prove his individual degree of professional security for the chemical production.

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**ИСПОЛЬЗОВАНИЕ ПОКАЗАТЕЛЕЙ ЗАБОЛЕВАЕМОСТИ С ВРЕМЕННОЙ НЕТРУДОСПОСОБНОСТЬЮ ДЛЯ ОЦЕНКИ ТРУДОСПОСОБНОСТИ РАБОЧИХ НЕКОТОРЫХ ПРОФЕССИЙ ХИМИЧЕСКОЙ ПРОМЫШЛЕННОСТИ**

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РЕЗЮМЕ

Проведено исследование заболеваемости с временной нетрудоспособностью рабочих основной производственно-профессиональной группы операторов-аппаратчиков, работающих в химической промышленности при производстве кальцинированной соды. В течение трех лет контингент рабочих, болеющих часто и продолжительно различными заболеваниями, находился под наблюдением. У рабочих определенной группы наблюдалось понижение количества рабочих дней на 71,85% из-за временной нетрудоспособности вследствие заболеваний и травм.

Методика оценки надежности трудоспособности рабочих основных производственно-профессиональных групп дает возможность прогнозировать участие рабочих при определении общественной производительности труда.