

WORK WITH THE COMPUTING SYSTEMS IN TRANSPORTATION IN THE CZECH REPUBLIC

РАБОТА С КОМПЬЮТЕРНЫМИ СИСТЕМАМИ В ТРАНСПОРТЕ В ЧЕШСКОЙ РЕСПУБЛИКЕ

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Abstract:

Transportation is being modernized in the Czech Republic, currently. New technical capabilities are used during the modernization. At workplaces in transportation the overall number of screens is increasing. The Czech legislation ensures the appropriate health protection at workplaces in the Czech Republic. The legislation focused on health protection at workplaces in the Czech Republic, regarding as well to workplaces with screens in transportation has been amended, nowadays. The reason for amending was particularly effort to simplify fulfilling of legislative requirements in practice. The asset of amendment for practice will be possible evaluate on the basis of employers' practice with the implementation of legislative requirements at the real workplaces.

KEYWORDS: TRANSPORTATION, COMPUTING TECHNIQUE, WORKING ENVIRONMENT, WORKING CONDITIONS, HEALTH, PROTECTION OF HEALTH, LEGISLATION.

1. Introduction

Transportation is being modernized in the Czech Republic. The road transportation, the railway transportation, the air transportation and the ship transportation are being modernized, currently.

Modern computing technique is applied in practice during the modernization. In workplaces in transportation there is being successively replaced the existing technology with new technology, which the most frequently employed screens. The number of workplaces with screens is constantly increasing. Screens are found in outdoor and indoor workplaces across transportation (e.g. offices, control rooms, ticket offices, cabins of mean of transport, outdoor work, outdoor works, where notebooks are being used, particularly).

Work with screens has influence on human health. The implementation of health protection arrangements is also being applied to all workplaces with screens across transportation.

The legislation of the Czech Republic sets the general hygienic requirements to be recommended for work with screens.

Currently, amendments have been adopted in the legislation of the Czech Republic concerning to health protection at work. Furthermore, these amendments concerning to health protection at work with screens in transportation.

2. Solution of the examined problem

2.1. Work with screens has influence on human health. This type of work might be related to occurrence of health problems.

The items are

- i) sight problems;
- ii) diseases of the locomotive organs;
- iii) psychosomatic diseases (e.g. digestion problems);
- iv) civilization diseases (e.g. obesity).

2.1.1. The sight problems are related with watching the screen.

The reasons might be different

- i) defect screen (line defect control etc.);
- ii) inappropriate character size;
- iii) lighting;
- iv) inappropriate brightness;
- v) inappropriate contrast;
- vi) inappropriate eye-to-screen distance.

2.1.2. The diseases of the locomotive organs are related with

- i) non-ergonomic situation in workplace (physical space arrangement of workspace, furnishings);
- ii) inappropriate organisation of work (regime of work and breaks).

2.1.3. The occurrence of psychosomatic diseases is related with work in stress.

Particularly, the reasons might be

- i) inappropriate organisation of work;
- ii) time stress;
- iii) psychically strenuous work (high responsibility etc.).

2.1.4. The civilisation diseases

The civilisation diseases are related with

- i) inappropriate working style;
- ii) inappropriate work regime;
- iii) inappropriate relaxation (lack of exercise etc.).

2.2. At work with screens the electromagnetic field generated by screen may influence on health.

Screens fulfilling the hygienic limits are safe from health point of view.

Health problems connected with electromagnetic field generated by screen might occurred during the work with

inappropriate screen (defect screen non-fulfilling legislative requirements).

2.3. The health prevention helps prevent the above mentioned health problems.

The general hygienic requirements have to be fulfilled in all workplaces, particularly in workplaces with screens. Beside the specific requirements, which are related with workplaces with screens have to be fulfilled as well.

2.3.1. The general requirements are particularly the hygienic requirements for

- i) sanitary facilities (washrooms, shower rooms, etc.);
- ii) water supply;
- iii) air quality;
- iv) workplace microclimate in (air temperature, humidity, ventilation system, etc.);
- v) workplace lighting;
- vi) noise;
- vii) vibrations;
- viii) dustiness;
- ix) air circulation;
- x) proper cleanness of workplaces.

2.3.2. The requirements for work with screens are connected with

- i) the regime of work and breaks (safety breaks at work);
- ii) the ergonomic configuration of workplace;
- iii) furnishings of workplace (working chair, wrist rests, footrests, etc.);
- iv) workplace equipment by using modern and quality techniques (without defects effecting human health).

2.3.3. The character of work with screens is changing with development of technique.

Therefore the legislation has been amended to focus on health protection field in harmony with practice. During last years the hygienic requirements for work with screens are successively increased in the legislation of the Czech Republic.

2.4. The legislative amendments are required due to the following reasons:

- i) With the technique development the influence of work with screens on human health is changing.
- ii) The practice shows that numerous that fulfilling the legislative requirements is too complicated or non-effective.
- iii) The legislative requirements and amendments are dependent on current economic and technical possibilities.

2.5. The current amendments will provide

- i) simplifying of some procedures for risk assessment for working conditions as risk factors;
- ii) more flexibility adopted measures

- iii) specifying some indicators and risk assessment means of selected risk factors;
- iv) supplementing completely new paragraphs.

New Amended Government Regulation No. 361/2007 of the Collection of Laws of the Czech Republic, establishing conditions for the protection of health at work, in wording later Governmental Regulation No. 68/2010 of the Collection of Laws of the Czech Republic, decreased the administrative and financial pressure of employers.

The new Amended Government Regulation No. 361/2007 of the Collection of Laws of the Czech Republic simplifies the risk assessment for a risk of heat stress and the provision of protective drinks. The requirements for quality of protective drink are harmonised.

2.5.1. Other amendments are focused in field

- i) physical stress;
- ii) local muscle stress;
- iii) working position;
- iv) object manipulation tasks;
- v) simplifying of risk assessment with reference to average duty period.

Furthermore, the new Amended Government Regulation is supplemented by requirements focused on proper cleanness of workplaces. Regular terms for cleaning of light sources, cleaning and painting of workplaces are set in accordance with the new Amended Government Regulation as well as the fixed periods of time for cleaning and painting.

2.5.2. The above mentioned legislative amendments will provide

- i) simplifying of health care implementation by employers;
- ii) improving working conditions of employees.

3. Results of discussion

In transportation the number of workplaces with screens is increasing. Workplaces in transportation with screens are diversified (offices, control rooms, traffic control rooms, ticket offices, etc.).

In transportation every workplace with screens is being assessed, reviewed and designed individually from hygienic point of view.

Hygienic requirements for workplaces with screens are set by the legislative. This amended legislative is in accordance with practice.

Currently, the legislative amendment has been approved for improving health care in transportation.

The requirements for health of workers at work with computing systems are involved in Labour Code (Act No. 262/2006 of the Collection of Laws of the Czech Republic) in section 4 par. 89, section 5 par. 104 in wording of later regulations and in Government Regulation No. 361/2007, of the Collection of Laws of the Czech Republic, establishing conditions

for the protection of health at work, in wording of later Government Regulation No. 68/2010 of the Collection of Laws of the Czech Republic, with legal force from May 1, 2010.

4. Conclusion

In the Czech Republic subsequent legislation amendments regarding workplaces with screens have been introduced in transportation.

It is expecting that the legislation amendments will provide simplifying of health care implementation at workplaces with screens in transportation in practice and improving working conditions of work with screens for employees.

The new Amended Government Regulation No. 361/2007, of the Collection of Laws of the Czech Republic, establishing conditions for the protection of health at work, in wording later Governmental Regulation No. 68/2010, with legal force from May 1, 2010.

From legal force of the new Amended Government Regulation the conditions at workplaces will be continuously monitored (Hygiene Service Inspection, etc.). There will be possible to assess objectively contribution of current legislative amendments for employers and employees, as well, after sufficiently long period of practice.

5. References

Collection of Laws of the Czech Republic
European Union Occupational Safety and Health
Legislation and Standards