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IDENTIFYING DANGERS AND ASSESSING RISKS FOR THE ADMINISTRATIVE PERSONNEL AT “HERMANN OBERTH” FACULTY OF ENGINEERING, SIBIU, ROMANIA

1. INTRODUCTION

The risks educational institutions are bound to face are similar to those identified in other types of organizations, but in their case those risks might affect the teaching personnel as well as the administrative personnel, students and even visitors.

A risk identification and assessment process was developed for the administrative personnel working for the “Hermann Oberth” Faculty of Engineering, Sibiu, Romania in January 2008.

The general procedure for this assessment is briefly presented in figure 1:



Figure 1. The general procedure scheme

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The procedure above must be considered an integrated approach.

As the purpose of risk assessment is to continually improve working conditions. In other words, one might argue that the stages – from identifying dangers to prevention and protective plan implementation <196> must be followed by a monitoring stage, in which working conditions and applied prevention measures are analyzed, because new dangers might appear in time, generated by newly implemented technologies, tasks etc.

2. ADMINISTRATIVE-PERSONNEL RISK ASSESSMENT RESULTS

The team was formed in line with the widening participation principle, in order to make sure that the measures are accepted by all personnel, and that all personnel understand the imminence of new risks besides those previously identified.

In The administrative personnel were also involved in the danger-identification stage, because in most of the cases they are familiar with dangers related to a specific work place.

Data collection related to specific dangers and their frequency was performed by interviewing the administrative personnel. Thus, we tried to identify problems related to location and facilities, access ways and slipping and stumbling risks, equipment and mechanical risks, electrical safety, physical-environment factors, visual display units, psychosocial influences and data related to first-aid and fire extinction..

Risk in a working system appears because of occupational risks. Therefore, the elements which might help us characterize risk and thus its coordinates identified, are the probability that a risk factor might generate an accident and the seriousness of the consequences that the risk factor might have upon the victim.

Thus, in order to assess risk, respectively safety, the following steps must be taken [1]:

- identifying the risk factors for the analyzed system;
- indentifying consequences upon the victim, namely determining their seriousness;
- indentifying the probability that they might act upon the performer;
- setting risk levels depending on the seriousness and probability of risk-factor influence.

Thus, we identified the following risks:

A. Risk factors related to the performer

a. Wrong actions:

- electric shocks ocured upon contact with electric equipment, wires, sockets, etc. with wet hands;
- injury because of misplaced objects;
- injury in road accidents when on duty or when commuting to/from work;
- injury by means of transportation on public roads when on duty or when commuting to/from work;
- fall on slippery surfaces;
- fall by stumbling;

- fall from chairs;
- fall on uneven surfaces obstacle;
- electric shock during unauthorized interventions on electric equipment;
- misuse of paper cutting machines;
- misuse of photocopiers.

B. Risk factors related to work tasks

- a. Inappropriate tasks:
 - storage of office materials on access ways in the office.
- b. Excessive labor:
 - seated work position – static effort;
 - inadequate work positions.
- c. Psychological overload:
 - high work rhythm;
 - high responsibility (transcripts, certificates, class registers, reports).

C. Risk factors related to means of production

- a. Mechanical risk factors:
 - injury by means of transportations in parking lots and on the road;
 - shock, injury, impact (when using means of transportation);
 - fall of misplaced materials or during manipulation;
 - injury caused by cutting/pricking in sharp edges of work equipment (Direct contact with dangerous surfaces).
- b. Electric risk factors:
 - electric shock upon use of uninsulated equipment.
- c. Thermal risk factors:
 - injuries caused by fires at the work place;
 - smoke intoxication during fires at the work place.

D. Risk factors specific to the work place

- a. Physical risk factors:
 - high temperatures in summer and because of lack of air conditioning and office position (SE);
 - draught caused by doors, windows which are not air tight;
 - noise or smell from neighboring work places;
 - physical and psychological attack risks;
 - natural or artificial light reflection in worker's eyeshot;
 - natural disasters- earthquake.
- b. Biological risk factors:
 - microorganisms (bacteria, viruses).

2.1. Recommended measures

In order to diminish or eliminate the 3 risk factors which reached a level higher than the accepted 3.5 we implemented the following measures:

In order to eliminate risks related to the use of transportation means in the parking lot or on the road (when illegally crossing the road to the Rector's Office building) employers were required to observe the regulations of the Romanian Road Code.

Before using own vehicle, employers must perform the following operations:

- check tires, windshield wipers, lights, and braking system;
- check the windshield defogging system, the heating and air-conditioning systems;
- check visibility (windshield, windows); cleaning the headlights, turn signals, tail lights, brake lights and license plates;
- first aid kit, tools kit, and fire extinguisher.

Required documents:

- driver's ID;
- driving license;
- vehicle registration certificate;
- certificate signed and stamped by faculty management.

Organizing measures:

Behavior on the road:

- observe traffic signs;
- observe road regulations in force;
- refrain from alcohol consumption or tranquilizer intake before driving.

In order to eliminate risk to fall through slipping, stumbling several technical and organizational measures were taken:

Technical measures:

- fixing and mounting all protection devices (cables mounted on walls, floor tiles repaired, anti-slip tapes mounted on steps, lighting systems for staircases);
- mounting light switches on each floor.

Organizational measures:

- access ways (halls, stairs) are to be used with caution;
- all defects of the floor tiles are to be reported.

3. CONCLUSIONS AND INTENTIONS

The global risk level for the work place "AUXILIARY ADMINISTRATIVE PERSONNEL" is 3.15, i.e. low-medium risk level (maximum level: 3.5).

The result is supported by the "Assessment Form": only 3 risk factors out of 31 are higher than (3), i.e. they have a risk level of 4, being thus medium risk factors.

The 3 risk factors are:

- **F11.** Injury by transportation means in the parking lot and on the road (illegally crossing the street to the Rector's Office building) – *partial risk level 4*;
- **F12.** Shock, injury, impact, compression (use of own transportation or public means of transportation) – *partial risk level 4*;
- **F5.** *Fall by slipping, stumbling – partial level of risk 4.*

The factors according to their respective sources are presented in figure 2.

Suggested measures are recommendations, their purpose being to provide information for prevention and protection measures in the Prevention and protection plan, under the provisions of Occupational Safety and Health Law No 319/2006 (art.13, lett. b).

The Faculty, according with the application methodology of the Occupational Safety and Health Law No 319/2006 (article no. 46), has also the following responsibilities regarding the Prevention and protection plan:

- review it whenever appears changes in working conditions and the emergence of new risks;
- establishing human and material resources necessary for the prevention and protection set;
- making aware and presenting to workers the plan review and / or their representatives or the safety and health comity at work;
- signing the plan of prevention and protection by all the workers.

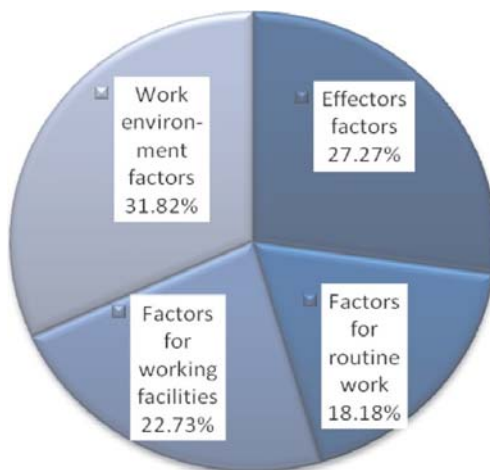


Figure 2. Risk factor distribution

After completion of the prevention and protection plan the faculty will realize specific work instructions for administrative staff from offices.

These instructions will include a set of measures to prevent work accidents and illnesses specific of desk activities. These are minimum requirements and mandatory regarding job security of employees during the work.

Preventive measures included in its instructions it will eliminate the dangerous factors existing in the work of each component thereof.

We are trying to achieve safe working tasks by applying the provisions and aims of the content of instructions and training the appropriate behavior.

These instructions will apply to all employees performing that specific office duty after the elaboration.

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