SAFETY AND HEALTH RISKS ASSESSMENT FOR THE OPERATORS OF A TIRE MANUFACTURING LINE

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Abstract: The research, the results of which are summarized here, aimed to identify and assess the risks of occupational injury/illness for representative categories of workers within a multinational company producing tires. From the multitude of available methods it was chosen to use the method developed by the National Institute dor Research and Development in Occupational Safety Bucharest, which is quasi-generalized in our country and allows a realistic assessment without requiring detailed quantitative analyses. It was thus possible to to rank intervention priorities and to generate optimal measures to minimize occupational risks through technical-engineering and organizational prevention/protection.

Keywords: occupational hazard, working system, severity, likelihood, risk rating, prevention and protection plan.

1. INTRODUCTION

The assessment of occupational risks involves the identification of all risk factors in the analyzed system and the quantification of their size based on the combination of two parameters: the severity and frequency of the maximum possible consequence on the human body [1], [2]. In this way, partial risk levels are obtained for each risk factor, respectively global risk levels for the entire analyzed system [3], [4]. European guidelines on workplace risk assessment propose an approach based on a number of different steps [5-7]. There are a variety of methodologies to achieve the same objective. There is no single "right" method for conducting a risk assessment, and different approaches may work in different circumstances [8-10].

Law no. 319/2006 on occupational health and safety contains the following provisions aimed at the obligation of risk assessment [12]:

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i. the employer has the obligation to "*assess the risks for the safety and health of workers, including the choice of work equipment, substances or chemical preparations used and the layout of workplaces*" (art. 7, paragraph 4, letter a);
ii. the employer has the obligation "*to carry out and be in possession of a risk assessment for safety and health at work, including for those groups sensitive to specific risks*" (art. 12, paragraph 1, letter a).

Also, by the provisions of art. 13, lit. b, Law no. 319/2006 on safety and health at work establishes the fact that, in order to ensure the conditions of safety and health at work and for the prevention of work accidents and occupational diseases, employers have the obligation "*to draw up a prevention and protection plan composed of technical measures, sanitary, organizational and other types, based on the risk assessment, to be applied according to the work conditions specific to the unit*" [11].

In accordance with art. 15, paragraph 1, point 1 of H.G. no. 1425/2006 for the approval of the Methodological Norms for the application of the provisions of the Occupational Safety and Health Law no. 319/2006, the first of the prevention and protection activities carried out within the enterprise and/or unit is represented by "*hazard identification and risk assessment for each component of the respective work system, work load, work means/work equipment and the work environment at jobs/work stations*" [13], [14].

For many businesses, especially small and medium-sized businesses, a simple, five-step approach like the one below should work just as well.

Stage 1. Identification of hazards and exposed persons: identification of possible sources of workplace injury and workers who may be exposed to hazards.

Stage 2. Assessing the risks and classifying them in order of priority: assessing the existing risks (severity and probability of possible injuries...) and classifying them in order of priority according to importance.

Stage 3. Deciding on preventive actions: identifying the appropriate measures to eliminate or keep the risks under control.

Stage 4. The adoption of concrete prevention and protection measures, based on a plan that establishes the order of priority.

Stage 5. Monitoring and review: the assessment should be reviewed at regular intervals to ensure a permanent update.

However, it is important to know that there are other methods that work just as well, especially in the case of more complex risks and circumstances. The type of approach applied to the assessment will depend on:

- the type of job (for example, a fixed job or one that involves travel);
- type of process (eg repetitive operations, development/change processes, on-demand work);
- the task performed (for example, repeated, occasional or high-risk tasks)
- technical complexity.

In some cases, a single exercise may be appropriate to cover all workplace risks or activity. In other cases, different approaches may be appropriate for different parts of

a job. A record of the results of the workplace risk assessment must be made. Such a record can be used as a basis for:

- transmission of information to interested persons;
- monitoring after the assessment, to check if the necessary measures have been implemented;
- presenting evidence to the control authorities;
- any revision in case the working conditions change.

It is recommended to record at least the following information:

- the name and function of the person/persons who performed the examination;
- the hazards and risks identified;
- groups of workers facing specific risks;
- necessary protective measures;
- information regarding the implementation of the measures, such as the name of the responsible person and the date;
- information regarding subsequent regulations regarding monitoring and review, including deadlines and persons involved;
- information regarding the involvement of workers and their representatives in the risk assessment process.

The registration of the evaluations must be done by consulting and with the participation of the workers and/or their representatives and brought to their attention. In any case, the workers concerned should be informed of the outcome of each assessment relating to their workstation, and of the action to be taken following the assessment [15].

2. MATERIAL AND METHOD

The Investigated Company is an international concern based in Germany, manufacturer of automotive components: tires, braking systems, stability control systems, etc. The concern, headquartered in the German city of Hanover, is the world's second largest producer of electronic braking systems and fourth in tire production. The company is one of the world's largest suppliers of components for the automotive industry, with extensive activities in particular in the field of tire production, braking systems, vehicle dynamics control and electronic sensors. The company owns eight production units and three research and development centers in Timișoara, Sibiu, Carei, Arad and Iași, a tire factory in Timișoara, the factories of industrial components Contitech Timișoara, PHX Romania and Phoenix Unio in Carei, in Satu Mare county , and the Continental Automotive Products auto parts factory in Sibiu. The company produces tubing for car air conditioning systems and transmission belts in Timișoara, and cooling hoses in Carei. In 2000 the Automotive Company started the production of tires in the new site in Timișoara (Figure 1). The factory has experienced an impressive evolution from its foundation to the present. Within this industrial building, in addition to the industrial hall where tire production is carried out, we also find an office area, the laboratory, canteen, medical office, changing rooms and sanitary facilities. Thus, the

production area and warehouse increased by 5,000 square meters and the new office building has 2,200 square meters .

Fig. 1. Head office of the investigated company: general view (left) and detail from the tire factory (right)

Taking into account the fact that this multinational company has several work points worldwide as well as research bases, it offers the possibility to compete on an equal footing with any company in the field. Considering the size of the company's activity, special attention was given to the continuous improvement of the professional categories active in production as well as the support categories.

Among the professional categories encountered in the company we can list: Production engineers; Design and engineering engineers; Quality Engineers; Method engineers; Maintenance engineers; Customer relations managers; Supply Chain Operations Managers; HR Human resources; Sales managers; Production supervisors; Quality technicians; Maintenance technicians; multiple categories of operators.

The range of manufactured tires varies between 13 and 20 inches, with speed symbols up to Y rate – 300 km/h. The factory produces UHP (Ultra High Performance), electric vehicle and light commercial vehicle (VAN) tires.

The tires produced contribute to the company's Vision Zero strategy, which has set itself an ambitious goal to be achieved in three successive stages: the evolution from the best in braking to zero fatal accidents, zero accidents with casualties and zero accidents. From all the workplaces and functional units for which the legislation imposes the mandatory risk assessment for the safety and health of workers, in this paper we present the results obtained for 3 of them, shown in table 1.

Table 1. **List of workplaces for which the safety and health at work risk assessment was carried out**

No..	Job/post/work station	Number of workers
1.	Fabrication operator for tire casing construction	1
2.	Assembly operator for the final construction of the tire	1
3.	Operator feeding modules and production lines	1
Total		3

From the multitude of methods used worldwide and nationally to assess the risks of occupational injury and illness, in this work it was decided to use the method developed by I.N.C.D.P.M. Bucharest [11].

This tool is part of the category of analytical, semi-quantitative methods and consists, in essence, in the identification of all risk factors in the analyzed system (workplace) with the help of predetermined checklists and the quantification of the size of the risk for each individual risk factor, based on the combination of severity and frequency of the maximum foreseeable consequence. The global risk level, at the workplace, is determined as a weighted average of the partial risk levels, so that the compensations are minimal. The level of security results indirectly, being inversely proportional to the level of risk.

The application of the method is completed with two centralizing documents for each workplace: the risk assessment sheet and the proposed measures sheet. In the first sheet, the identified risk factors, their quantification parameters, the maximum foreseeable consequence, the severity and frequency classes, the risk level for each individual risk factor and the global risk level at the workplace are entered.

The second sheet contains the technical and organizational measures necessary to combat the action of each risk factor at the evaluated workplace, ranked according to the risk levels, starting with the very high levels (7, 6, 5, 4,...). By applying these measures, the workplace moves from a higher risk level to lower levels.

3. RESULTS AND DISCUSSION

Applying the tools and the procedure specific to the INCDPM Bucharest method [11], the specific risks were identified, the severity classes and the likelihood classes related to each of the identified risks were assigned, and then - using the scale of framing the risk levels, the partial risk levels were set.

The results obtained are centralized in Table 2. The meaning of the notations in table 2 is as follows: *WSE - Work system element; IR - identified risk; RF – risk factor; MC - Maximum consequence; S - Severity; Likelihood; RL - Risk level; WE - Working equipment; OE - Occupational environment; WT - Working task; HF - Human factor; N-negligible; LTI 3-45 – Lost Time Injury from 3 to 35 days; LTI 45-180 – Lost Time Injury from 45 to 180 days; INV I – first degree invalidity; INV II – second degree invalidity; INV III – third degree invalidity; D – death.*

Since the detailed presentation of the method application method and the results related to the three evaluated jobs would have generated an extension of the volume of the work incompatible with the rigors of publication, in this section we reproduce the results obtained for the job " ***Operator feeding modules and production lines*** ", the other final results being synthesized in the next section of the article.

3.1. Working process description

The work process consists of checking material stocks from modules according to the production plan, validating orders, feeding modules, collecting empty carts or tread wagons and distributing them to the component production areas or the preparation area as appropriate (Figure 2).

Fig. 2. Operator feeding modules and production lines

3.2. The components of the evaluated work system

Means of production/work equipment: transport equipment; tablet for orders; vest, gloves, overalls, protective boots; phone; forklift.

Work load: takes over the shift from the operator of the previous shift; log on to the transport vehicle; receives on the tablet the programming of the necessary materials for supplying the modules; moves to the modules to check the actual material stock; write down their records from each individual module; in the first stage, they prioritize emergencies; supplies the modules with the necessary material/materials; respects the rules regarding the handling of the transport equipment according to the regulations; respects the travel lanes and always secures himself; respect the speed limit for movement; reports problems that arise to the shift leader; operation of specific equipment and machinery, according to the job requirements and legal certifications and authorizations (e.g. transport equipment, forklift, etc.); hand over the shift to the next shift operator.

Work environment: The operator supplying the modules and production lines carries out his activity in the area of the Tire Building which is located in the industrial hall, the environment in which he works contains the following elements: artificial lighting;

continuous noise according to the measurements made; temperature fluctuations due to the activity generally carried out in the Tire Building area and particularly outside the production hall; strong air currents (natural draft, ventilation system).

3.3. Risk assessment

The results of the identification of risk factors, the allocation of severity and probability classes, their aggregation by using the specific tools of the INCDPM Bucharest method and the partial risk levels related to the identified risks are centralized in table 2.

The partial risk levels by risk factors for the job " Operator feeding modules and production lines" are represented in the histogram in figure 3, and the prevention/protection measures proposed following the analysis of risk minimization possibilities are centralized in table 3. The overall risk level of the workplace is:

$$N_{rg} = \frac{\sum_{i=1}^{41} r_i \cdot R_i}{\sum_{i=1}^{41} r_i} = \frac{1\cdot(7\times 7)+0\cdot(6\times 6)+1\cdot(5\times 5)+9\cdot(4\times 4)+16\cdot(3\times 3)+8\cdot(2\times 2)+6\cdot(1\times 1)}{1\times 7+0\times 6+1\times 5+9\times 4+16\times 3+8\times 2+6\times 1} = \frac{400}{118} = 3{,}38$$

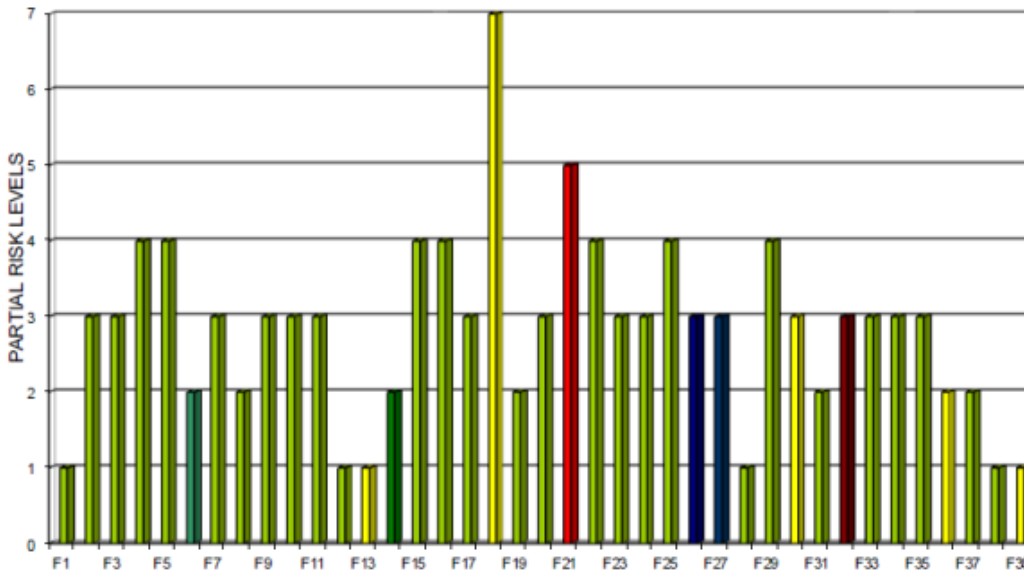

Fig. 3. Partial risk levels by risk factors. The job "Operator feeding modules and production lines". Global risk level: 3.38

Table 2. **Job evaluation sheet: Operator feeding modules and production lines**

Unit: SC Analysed Company SA		**WORKPLACE RISK EVALUATION SHEET**	**Workers exposed:** 1			
Department: Tire Building			**Duration of exposure:** 8 h/sch.			
Job: Operator feeding modules and production lines			**Evaluation team**: Risk assessor, operator, department head, occupational medicine doctor			
WSE	**IR**	**The concrete form of manifestation of risk factors (description, parameters)**	**MC**	**S**	**L**	**RL**
Means of production/ Work equipment	Mechanical risk factors	1. Failure of the coupling mechanism of the material or empty carts to the transport machine;	Negligible	1	4	1
		2. Free fall of the plastic supports of the reinforcement beads when cornering;	Death	7	1	3
		3. Rolling of the cloth of a material box on the travel aisle, when the blocking system of the box fails;	INV.gr.III	4	2	3
		4. Movement of the forklift arms in the opposite direction of the operation of the control levers;	INV.gr.III	4	3	4
		5. Free fall of a pallet when overlapping pallets are moved;	Death	7	2	4
		6. Free draining of oil from forklift trucks;	INV.gr.III	4	1	2
		7. Sudden and speedy handling of the work machine;	LTI 45-180	3	4	3
		8. Delayed activation of the machine's pedestrian distance sensor;	LTI 45-180	3	1	2
		9. The balance of the drawers of the raised track carriages when the transport equipment leaves the mode;	Death	7	1	3
		10. Moving truck with operator wearing headphones to listen to music/miscellaneous while feeding modules;	LTI 45-180 zile	3	4	3
		11. Wet surfaces dangerous for the transit of the transport equipment;	ITM 3-45	2	5	3
		12. Defective when the machine's brake pedal is actuated;	Negligible	1	2	1
	Thermal risk factors	13. Low temperature in the storage area of additional empty carts outside;	Negligible	1	3	1
		14. High temperature in the preparation area;	LTI 3-45	2	3	2
	Electrical risk factors	15. Electrocution by direct contact - uninsulated conductors or with aged and/or wet insulation;	Death	7	2	4
		16. Electrocution by indirect contact or the appearance of step voltage: -connections to the grounding installation with a high degree of corrosion, without socket lugs; - accidentally punctured insulation and condensate leaks.	INV.gr.I	6	2	4
	Chemical risk factors	17. Flammable substances – flammable substances used in the production of raw materials, etc.;	INV.gr.II	5	1	3
		18. Inhalation of the powders used in the preparation;	Death	7	5	7

WSE	IR	The concrete form of manifestation of risk factors (description, parameters)	MC	S	L	RL
Work environment (WE)	Physical risk factors	19. Alternation of temperatures in the production hall - outside - preparation area;	LTI 3-45	2	4	2
		20. High relative humidity;	LTI 3-45	2	5	3
		21. Modest machine lighting level;	INV.gr. III	4	5	5
		22. High noise level in the production hall, preparation area and component production area;	INV.gr. III	4	4	4
		23. Natural calamities.	Death	7	1	3
	Chemical risk factors	24. Industrial airborne dusts resulting from manufacturing in preparation;	LTI 3-45	2	5	3
		25. Toxic gases - exhaust gases, thinner vapors from welding, impregnation or results from fire or accident;	Death	7	2	4
		26. Flammable or explosive gases or vapors - thinners, paints, varnishes, etc.	Death	7	1	3
	Special character of the environment	27. Working in conditions of thermal fluctuation, special conditions - premature wear of the body.	LTI 45-180	3	3	3
Working Task (WT)	Physical overload	28. Forced working positions, when taking over carts and boxes of material;	Negligible	1	3	1
		29. Dynamic effort - alert and continuous movements, heavy handling of the blocking of boxes and trolleys.	INV.gr. III	4	4	4
	Mental overload	30. Difficult decisions in a short time made in a noisy environment, the professional stress is increasingly accentuated.	LTI 3-45	2	5	3
Human Factor (HF)	Wrong actions	31. Defective handling of the transport equipment;	LTI 45-180	3	1	2
		32. Failure to comply with speed at transit points;	LTI 45-180	3	3	3
		33. Lack of insurance when making turns with the machine;	Death	7	1	3
		34. Spontaneous entry of operators onto the pedestrian crossing when performing the entry maneuver to the machine's production modules;	LTI 45-180	3	3	3
		35. The descent of the operator handling the machine when it was in motion;	LTI 45-180	3	3	3
		36. Moving to the production line with more boxes than the safety standard requires;	LTI 3-45	2	3	2
		37. Making some improvisations to the machine's safety system;	LTI 3-45	2	4	2
		38. Use of an unauthorized cutting device that can cause injury by handling;	LTI 3-45	2	1	1
		39. Temporary stationing of transport boxes in the area of movement of machinery and the pedestrian area;	Negligible	1	3	1
		40. Passing through cordoned off areas when work or maintenance is being carried out.	INV.gr. III	4	1	2
	Omissions	41. Non-compliance with the mode of use of the transport equipment according to the training and the poor use of the reflective equipment necessary for the transport of the cassettes.	Death	7	2	4

Table 3. **List of proposed prevention and protection measures**

No.	Risk factor	Risk level	Proposed measures
0	**1**	**2**	**3**
1.	F18 - Inhalation of the powders used in the preparation;	7	**Technical measures:** • expansion of the aeration system in the preparation area; • installation of machines with protective materials and equipment; **Organizational measures:** • establishing a flow of orders for a lower exposure of the preparation area; • the delimitation of the preparation area with the production area.
2.	F21 - Modest machine lighting level;	5	**Technical measures:** • equipping the machine with an advanced lighting system with a stronger brightness; • mounting some reflective elements on the machine.
3.	F4 - Movement of the forklift arms in the opposite direction of the operation of the control levers;	4	**Technical measures:** • carrying out periodic technical revisions of transport equipment; • ensuring preventive maintenance.
4.	F5 - Free fall of a pallet when overlapping pallets are moved;	4	**Măsuri organizatorice:** • drawing up an instruction for transporting pallets, rules, conditions; • staff training; • appointing a superior to supervise the activity;
5	F15 - Electrocution by direct contact - uninsulated conductors or with aged and/or wet insulation;	4	**Technical measures:** • isolation of connection terminals and other current paths from the electrical welding equipment component; • checking and repairing the supply conductors; • making the mass circuits according to the technical and security provisions in force; • visual verification of the integrity of the grounding of the apparatus casings, metal and concrete pillars and supports, in the work area; • discharging the capacitive load of the installation to be worked on; • the use, as appropriate, of electro-insulating gloves, shoes or electro-insulating carpet and tools with an electro-insulating handle. **Organizational measures:** • following the schedule for checking the protective equipment provided (both technical equipment and individual protective equipment).
6.	F16 -Electrocution by indirect contact or the appearance of step voltage: - connections to the grounding installation with a high degree of corrosion, without socket lugs; - accidentally punctured insulation and condensate leaks.	4	**Technical measures:** • isolation of connection terminals and other current paths from the electrical welding equipment component; • checking and repairing the supply conductors; • making the mass circuits according to the technical and security provisions in force; • visual verification of the integrity of the grounding of the apparatus casings, metal and concrete pillars and supports, in the work area; • discharging the capacitive load of the installation to be worked on; • the use, as appropriate, of electro-insulating gloves, shoes or electro-insulating carpet and tools with an electro-insulating handle.

3.4. Interpretation of the risk assessment results

The global risk level calculated for the "*Operator feeding modules and production lines*" job is equal to 3.38, a value that places it in the category of jobs with a low to medium risk level, exceeding the maximum acceptable limit (3.5).

The result is supported by the "*Assessment Sheet*", from which it can be seen that out of the total of 41 risk factors identified, only 10 exceed, as a partial level of risk, the value of 3, 1 falling into the category of maximum risk factors, 1 falling into the category of high risk factors, and the other 8 falling into the category of medium risk factors. The 10 risk factors that are in the unacceptable range are:

- ***F18:*** *Inhalation of powders used in the preparation to produce;* ***- partial risk level 7;***
- ***F21:*** *Modest machine lighting level;* ***- partial risk level 5;***
- ***F4:*** *Moving the forklift arms in the opposite direction of the control levers actuation;* ***- partial risk level 4;***
- ***F5:*** *Free fall of a pallet when overlapping pallets are moved;* ***- partial risk level 4;***
- ***F15:*** *Electrocution by direct contact - uninsulated conductors or with aged and/or wet insulation;* ***- partial risk level 4;***
- ***F16:*** *Electrocution by indirect contact or the appearance of step voltage: - connections to the grounding installation with a high degree of corrosion, without socket lugs; - accidentally punctured insulation and condensate leaks.* ***- partial risk level 4;***
- ***F22:*** *High level of noise, in the production hall, preparation area and component production area;* ***- partial risk level 4;***
- ***F25:*** *Toxic gases - exhaust gases, diluting vapors from welding, impregnation or results from fire or accident;* ***- partial risk level 4;***
- ***F29 -*** *Dynamic effort - alert and continuous movements, heavy handling of the blocking of boxes and trolleys;* ***- partial risk level 4;***
- ***F41:*** *Failure to observe the mode of use of the transport equipment according to the training and poor use of the reflective equipment required for the transport of the cassettes.* ***- partial risk level 4.***

In order to reduce or eliminate the 10 risk factors (which are in the unacceptable range), the generic measures presented in the "*Proposed measures sheet*" are necessary.

Regarding the distribution of risk factors by generating sources, the situation is as follows (fig. 4):

- 50%, factors specific to the means of production;
- 30%, factors specific to the work environment;
- 10%, factors specific to the workload;
- 10%, executor's own human factors.

From the analysis of the Evaluation Form, it is found that 24.39% of the identified risk factors can have irreversible consequences on the performer (death or disability).

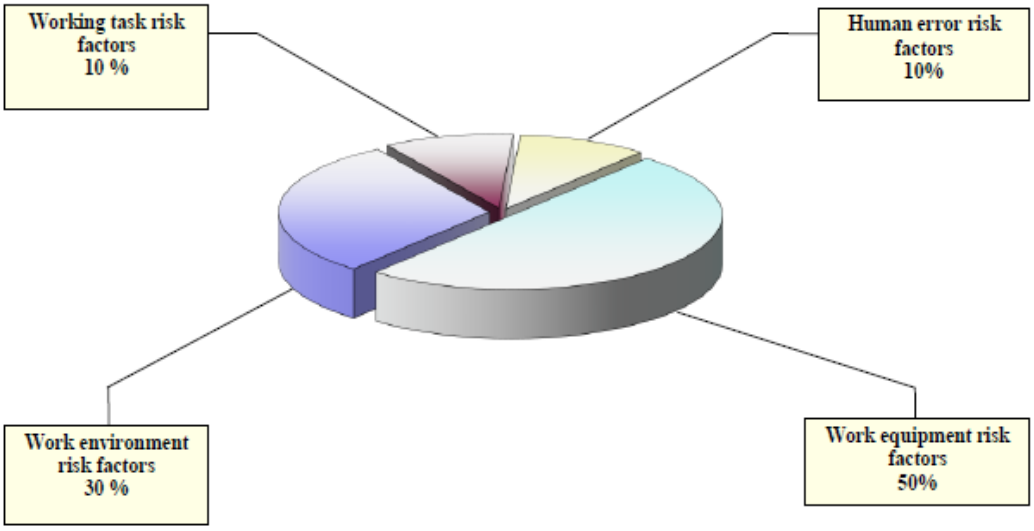

Fig. 4. The share of risk factors identified by the elements of the work system for „Operator feeding modules and production lines"

4. CONCLUSIONS

The research aimed at risk assessment and the development of prevention and protection measures for *S.C. Analyzed Company S.A*., in accordance with the provisions of art. 7, para. 4, lit. b, art. 12, para. 1, lit. and art. 13 of Law no. 319/2006 and art. 15, para. 1, points 1 and 2 of H.G. no. 1425/2006. To facilitate the fulfillment of employers' legal obligations in the field of risk assessment, a relatively large number of methods have been designed and are currently being used. From the multitude of methods used on a global and national level for risk assessment, in this work it was decided to use the method developed by I.N.C.D.P.M. Bucharest. The research was carried out based on the data provided by *S.C. Analyzed Company S.A*. through the job descriptions, lists of technical equipment, their technical books, the regulations for granting individual protective equipment, information about technological processes and the development of the work process for each job, received from the company's management and technical staff, as well as and the own observations made on the occasion of the documentation visits and follow-up of the activity for each workplace.

The completion of the work consisted of the following stages:

- analysis of the activities carried out within the company;
- establishing the workplaces for which the risk assessment for safety and health at work was carried out;
- identification of risk factors for each workplace;

- establishing the maximum foreseeable consequence of the action of the risk factors on the human body, for each individual risk factor;
- classification in gravity (severity) classes;
- classification in probability/likelihood classes (frequency);
- determination of the partial risk level for each identified risk factor;
- calculation of the global risk level for each job;
- interpretation of the results of the risk assessment for safety and health at work for each workplace, through the lens of current legislation;
- preparation of measures sheets for each workplace, for risk factors that exceed the acceptable level.

The results of the risk assessment are presented in the "*Job Evaluation Sheet*" and the "*Proposed Measures Sheet*" related to each analyzed workplace.

The list of evaluated jobs (is shown in table 4).

Table 4. **Risk assessment results for the analyzed workstations**

No.	Sheet no.	Workstation	Global risk level
1	F01	Fabrication operator for tire casing construction, Tire Building area	3.48
2	F02	Assembly operator for the final construction of the tire, Tire Building area	2.74
3	F03	Operator feeding modules and production lines, Tire Building area	3.38

The overall risk level on society is:

$$N_{gS} = \frac{\sum_{i=1}^{3} r_i \cdot N_{gi}}{\sum_{i=1}^{3} r_i} = 3.20$$

The ranking of work places, depending on the global level of risk, is shown in table 5.

Table 5. **Hierarchy of work places, depending on the global level of risk**

No.	Sheet no.	Workstation	Global risk level
1	F01	Fabrication operator for tire casing construction, Tire Building area	3.48
2	F03	Operator feeding modules and production lines, Tire Building area	3.38
3	F02	Assembly operator for the final construction of the tire, Tire Building area	2.74

According to the ranking, it is found that all jobs have a global risk level below the allowed limit (3.5), they fall into the category of those with a low to medium risk level. The value of the aggregate global risk level per company N_{gS} = 3.20, determines its inclusion in the category of those with a low to medium risk level.

This situation, good from the point of view of compliance with the legislation in the field of safety and health at work, is due both to the concerns of the designated worker (or the internal/external prevention and protection service) and to the efforts made by the management of the company, which integrates aspects of efficiency economic with those of safety and health at work.

Currently, we live in an almost permanent change, imposed by the growing competition, which implies a continuous effort of the companies to adapt to their survival on the market. With this development, there can often be improvements in working conditions, but also, what often happens, new hazards.

It is necessary to identify, evaluate and act on all existing professional risks, both those that can cause accidents and / or diseases, such as situations caused by mental fatigue, dissatisfaction at work, etc. and, in general, any possible damage to workers' health. In carrying out the work, there are not only negative aspects that should not be avoided or minimized, but there are also positive aspects, as well, that should be promoted and enhanced, for example, the possibilities of staff development, both professionally and personally and from the point of view social.

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