

The abstracts of the latest (2004-2003) articles published in the health and safety specific press:

a) of CIOP-PIB personnel or dealing with the Institute's activities, e.g. CIOP-PIB information campaigns

b) other authors

(varied subjects and kinds of Polish journals in Polish and English were taken into consideration)

1. Abramczyk A.: Rynek edukacji BHP. Polish market of education on occupational safety and health. *Promotor*, 2004, no. 4, p. 24-28.

The legal rules on occupational health and safety and labour law should be respected by every company irrespective the kind of the activity and the amount of the personnel. To obey these rules could help the training centres, OSH publishers and higher education institutions, as universities and technical universities. One of the institution, which publish a lot of OSH publications and conducts specialist and post-graduate courses and periodic basic training is the Central Institute for Labour Protection – National Research Institute (CIOP-PIB). The activities of this Institute are also described.

2. Gierasimiuk J.: Wymagania zasadnicze oraz tryb i procedury oceny zgodności maszyn i elementów bezpieczeństwa. Essential requirements and principles of conformity assessment resulting from regulations, which introduce the EMC directive (89/336/EEC). *Bezpieczeństwo Pracy - Nauka i Praktyka*, 2004, no. 3, p. 16-19.

Only those machines and safety components – new and used – can be introduced into the European Market, which meet the provisions of the 98/37/EC directive and other directives. This article discusses essential requirements with the mode and procedures for conformity assessment of machines and safety components listed in the decree that introduces into Polish law the requirements of that directive.

3. Mauer E.: Wspólna kampania polskiej i duńskiej inspekcji pracy. Nowa Sarzyna, 26-31 maja 2003. Joint campaign of Polish and Danish labour inspection. Nowa Sarzyna, 26-31 May, 2003. *Bezpieczeństwo Pracy – Nauka i Praktyka*, 2003, no. 6, s. 13-15.

Prevention activities in the chemical plants, which could be danger for the environment, are very important. Polish and Danish labour inspection prepared the campaign “A safe plant”, which was organized in the Chemical Plant “Organika – Sarzyna” S.A. in Nowa Sarzyna. The article describes the planned activities and the problems discussed on the international symposium, which was organized during the campaign.

4. Milczarek M., Najmiec A.: The relationship between workers' safety culture and accidents, near accidents and health problems. *International Journal of Occupational Safety and Ergonomic*, 2004, no.1, p.25-33.

One of the dimensions treated as part of a company's safety culture or climate is workers' attitudes towards risk and safety. In the present study these personal aspects are defined as workers' safety culture, which is understood as a way of acting focused on life and taking care of one's health. A questionnaire on safety culture was filled out by 200 employees of a metallurgical enterprise. Factor analysis was used to determine empirical scales of the questionnaire, whereas variance analysis was used to test hypotheses. The results confirmed the hypotheses that people who experienced accidents, dangerous situations, and—to a lesser extent—health problems had a lower level of safety culture. Nevertheless not all of the scales determined during factor analysis turned out to be significant as far as all kinds of those undesirable situations are concerned. Proposals for future studies are formulated in the conclusion.

5. Młodzka-Stybel A., Klimaszewska W: Krajowa Sieć Informacyjna – współpraca w strukturach europejskich. National Information Network – the cooperation in the European structures. *Bezpieczeństwo Pracy - Nauka i Praktyka*, 2003, no. 5, p. 13-15.

The Central Institute for Labour Protection – National Research Institute plays the role of the National Focal Point of the European Agency for Safety and Health at Work, which has its headquarters in Bilbao, Spain. The principal aim of the Agency is to support the process of mutual exchange of information between EU Member States and previous and new Candidate Countries. The Focal Point participates in the work of the Agency among others by cooperation with a National Information Network, maintaining the website and other forms of OSH promotion as conferences, picnics or occupational safety and health campaigns. The activities of CIOP-PIB as the Focal Point in 2002 and 2003 are described.

6. Morzyński L., Makarewicz G.: Application of neural networks in active noise reduction systems. *International Journal of Occupational Safety and Ergonomics*, 2003, no. 3, p. 257-270.

Active noise reduction systems based on a control unit in the form of a finite impulse response filter assume the linearity of every single component. Neural networks, which have so far been seldom used in this field, are a kind of a filter with the ability to project nonlinear characteristics of an active noise reduction system. This paper presents some simulation research studies of active noise reduction systems based on neural networks. Also presented are results of the operation of systems with different levels of complexity as well as the influence of different parameters of a neural network and of the system itself on those results.

7. Ogólnopolski konkurs na plakat bezpieczeństwa pracy. XI edycja pn. "Zagrożenia powodowane przez prąd elektryczny". *Bezpieczeństwo Pracy – Nauka i Praktyka*, 2003, no. 5, p. 16-17.

The Central Institute for Labour Protection – National Research Institute (CIOP-PIB) has organized the nationwide "Occupational Safety Poster Competition" and the exhibitions since 1997. In 2003 the 11th edition dealt with electrical hazards. The posters are very good source of information and let to promote safety behaviours in various places. The article inform on the opening of the competition for the professionals and the solemn closing of the attendant competition for children.

8. Pawłowska Z., Pęciło M.: Koszty i korzyści wdrażania dyrektyw UE z zakresu bezpieczeństwa i higieny pracy w ocenie polskich przedsiębiorstw. Costs and benefits of implementing EU directives on occupational safety and health in the opinion of Polish entrepreneurs. *Bezpieczeństwo Pracy - Nauka i Praktyka*, 2003, no. 10, p. 20-22.

Cost related to implementing EU directives on occupational safety and health into Polish law has sparked off numerous controversies and misgivings among Polish enterprises. However the findings of research conducted at the Central Institute for Labour Protection show that enterprises that did not have any difficulties in complying with current OSH regulations are not worried about the costs or problems that can result from changes in Polish law on OSH.

9. Podgórski D.: Zarządzanie bezpieczeństwem i higieną pracy jako element zintegrowanego zarządzania jakością. Occupational safety and health management as the element of the integrated quality management. *Q jakości*. 2003, Cz. I – no. 1, p. 41-48; Cz. II – no. 2, p. 33-39.

The idea of Total Quality Management (TQM) is described as well as the development of the standards on the occupational safety and health system management abroad and in Poland. The differences in the approach to the Occupational Safety and Health Management System according to the guidelines of International Labour Organization and to the standards from the series PN-N-18000 are indicated. The perspectives of the development of these systems according to the TQM rules are discussed.

10. Preis A., Kaczmarek T., Wojciechowska H., Żera J., Fields J.M.: Polish version of standardized noise reaction questions for community noise surveys. *International Journal of Occupational Medicine and Environmental Health*, 2003, no. 2, p. 155-159.

A Polish version of a noise annoyance scale is a result of the participation of Poland in the world network of countries, which are using the same method for

the estimation of noise annoyance. The Polish version of two standardized noise reaction questions for community noise surveys is presented. The described version of the scale has international counterparts. Using this scale in noise annoyance surveys it is possible for Polish data to become more comparable with other countries data and these data could expand the world database on human reactions to noise in different countries.

11. Rzepecki J., Serafińska A.: Nowy system ubezpieczenia wypadkowego w Polsce. New accident insurance system in Poland. *Bezpieczeństwo Pracy – Nauka i Praktyka*, 2003, no. 12, p. 2-4.

The article discusses benefits under the new workplace accidents insurance system and the rules pertaining to the accident prevention financing. Moreover, the article presents the principles underlying the differentiation of contribution rates at various stages of their implementation as well as the specification of the amounts of contribution rates now in place.

12. Suchecka M.: Bezpieczeństwo i higiena pracy na stronach internetowych Centralnego Instytutu Ochrony Pracy – Państwowego Instytutu Badawczego. Occupational safety and health in the websites of the Central Institute for Labour Protection – National Research Institute (CIOP-PIB). *Bezpieczeństwo Pracy – Nauka i Praktyka*, 2004, no. 2, p. 28-32.

This article presents the content of CIOP-PIB's most important websites, which disseminate practical knowledge in the field of occupational safety and health (OSH) and make implementing it in the Polish enterprises easier. Further development of those websites is directed at providing access to OSH information, which is most interesting for the users (e.g. OSH-related law regulations, articles, booklets, leaflets, checklists) and at preparing websites dedicated to special target groups, like small and medium enterprises (SMEs) or micro-enterprises, taking into account their specific information needs.

13. Szczecińska K.: Jak chronić ręce przed czynnikami gorącymi? How to protect hands against hot factors? *Promotor*, 2004, no. 2, p. 39-41.

The gloves should protect hands against several kinds of hot factors, an open flame, hot surface or object or splinters of melted metals. In the choice of the proper gloves one must take into consideration also other hazards and mechanical injuries of the hands or contact with water. The article discusses the problems connected with the gloves evaluation according to the EU directives.

14. Szczepankowska B.: „Niebezpieczne substancje chemiczne - zagrożenia dla człowieka i ekosystemu”. Seminarium, Poznań, 1 października 2003. V Konferencja Forum Liderów Bezpiecznej Pracy. „Dangerous chemical

substances” – the hazards for man and ecosystem”. The Seminar, Poznań, 1 October, 2003. The 5th Conference of the Safe Work Leaders’ Forum. *Bezpieczeństwo Pracy – Nauka i Praktyka*, 2003, np. 10, p. 12-13.

One way of OSH information and promotion campaign is the organization of conferences and seminars. The Central Institute for Labour Protection – National Research Institute (CIOP-PIB) during the 15th International Fair of Work Protection, Rescue and Fire Fighting Equipment SAWO 2003, 14-17.06.2004, in the frame of the 5th Conference of the Safe Work Leaders’ Forum, organized together with the Ministry of Economy, Labour and Social Policy the Seminar on dangerous chemical substances. The results of the labour inspectors’ controls substantiate the need of constant dissemination of the knowledge on chemical hazards and the rules established in EU standards. The article describes the problems discussed during the Seminar.

15. Wolska A.: Visual strain and lighting preferences of VDT users under different lighting systems. *International Journal of Occupational Safety and Ergonomics*, 2003, no.4, p. 431-440.

Lighting influences users' visual strain and well-being. Therefore creating lighting that ensures visual work conditions do not result in visual fatigue is a preventive activity. The aim of the study was to model different lighting systems for visual display terminal (VDT) work and to determine their influence on users' visual strain and preferences. The results of the study showed that visual fatigue was lowest for indirect and compound lighting systems. On the other hand, in general, direct lighting realized by "dark-light" luminaires was the most preferred lighting system. Some interesting differences related to age, gender, and VDT work experience were found. On the basis of the obtained results lighting designers can be provided with some guidance.

16. Z wizytą w Instytucie. The visit in the Institute. *Inspektor Pracy*, 2003, no 3, 2004, p. 4-6.

In February 2003 the Meeting of the Council of Labour Protection was organized in the Central Institute for Labour Protection – National Research Institute (CIOP-PIB). The article informs on the substantive contents of the Meeting, specially the OSH problems, talked over by the director of CIOP-PIB. The aims and the attained up to now achievements of the National Programme: “Adaptation of Working Conditions in Poland to European Union Standards. The article contains the statistical data on the costs of accidents and occupational diseases, on occupational accidents in the world, the statistical comparison of the hazards of major accidents in Poland and other European Union countries, the employment in the hazardous conditions in 2001.

Abstracts of the articles of other authors

17. Bilski B., Bednarek A.: Choroby układu ruchu a skuteczność leczenia fizjoterapeutycznego u górników kopalni węgla kamiennego. Disorders of locomotor system and efficacy of physiotherapy in coal miners. *Medycyna Pracy*, 2003, no. 6, p. 503 –509.

The aim of this survey was to analyze the efficacy of physiotherapy applied in coal miners as well as to assess their locomotor system load and the effects of working conditions in mines. The survey showed that the application of physiotherapeutic procedures diminished the back pain in the study group by 2.83 on average on the 0-10 scale. It was also found that magnetotherapy proved to be the most effective method in treating the spinal degenerative changes.

18. Makselon-Kowalska B.: Psychological mechanisms of coping with job loss. *Polish Psychological Bulletin*, 2003, no.2, p.73-83.

The goal of this paper is to present a classification of coping programs in the situation of job loss. The classification was based on the Psychological Model of Coping Behavior Regulation which illustrates coping activities. Data obtained from a group of 400 unemployed respondents allowed to identify four types of coping programs. The latter differ in terms of firstly, choices made by the unemployed at consecutive stages of the coping process and secondly, relative to the choices, in the amount of psychological costs involved in the process.

19. Niścigorska J., Skotarczak B., Wodecka B.: *Borrelia burgdorferi* infection among forestry workers - Assessed with an immunoenzymatic method (ELISA), PCR, and correlated with the clinical state of the patients. *Annals of Agricultural and Environmental Medicine*, 2003, no.1, p.14-19.

Occurrence of borreliosis in human population is associated with possibility of contact with the biological vector of this disease - a common European tick, *Ixodes ricinus*. Therefore, the highest number of cases of Lyme disease has been recorded among forestry workers and inhabitants of wooded areas. Diagnostics of borreliosis is based on immunoserologic tests - ELISA or indirect immunofluorescence method, Western blot technique, or on increasingly popular DNA examination using the polymerase chain reaction (PCR). In the present study, where 61% of the forestry workers were seropositive, we also tried to find a correlation between the results of serological tests and PCR tests with the clinical state of the patients. Despite finding IgM antibodies in 10 persons tested, which would indicate their recent infection, no DNA of *B. burgdorferi* s.l. was detected in their blood. Also, no DNA of this bacteria was present in 8 persons with IgM and IgG antibodies. No genetic material of the bacteria was found in persons with IgG antibodies, indicating the possibility of chronic infection. The clinical data suggested past symptomatic infection (ECM), or even more often, asymptomatic infection with *B. burgdorferi*.

20. Solecki L. Preliminary evaluation of occupational hearing loss risk among private farmers. *Annals of Agricultural and Environmental Medicine*, 2003, no. 2, p. 211-215.

The article presents a preliminary evaluation of occupational hearing loss risk in a group of farmers selected at random and exposed to a mean annual level of exposure to noise $L_{EX,8h} = 89.1$ dB. The study covered 31 family farms carrying out mixed production (plant-animal), possessing arable land of the size 5-40 ha, and equipped with the basic mechanical equipment (tractors, agricultural machinery, machines for production of animal fodder, workshop machinery, saws). The risk of hearing impairment was determined for the population of males aged 50, regularly exposed to noise for 30 years of occupational activity, assuming as a basis for calculations the mean value for 3 audiometric frequencies (1, 2 and 4 kHz). The results of the study showed that the mean expected hearing loss (median: $N_{0.50}$), associated only with noise for 50-year-old males after 30 years of employment will be: 5.5 dB (together with age-related loss: 14.5 dB). The results obtained confirm that noise present in the working environment of private farmers creates a significant risk for the organ of hearing.