Věra Pelantová

Kompetencje a bezpieczeństwo i higiena pracy

Věra Pelantová

COMPETENCIES AND OCCUPATIONAL HEALTH AND SAFETY

Abstract

Organisations often use an occupational health and safety management system. Core competencies of a manager in an organisation should also include knowledge of this area. The article compares normal models of competencies with the basic principles of occupational health and safety at work and also with the principles of the process approach. The result is a recommendation to enhance competencies with process management. An individual will learn this wide range of know-how a long time.

KOMPETENCJE A BEZPIECZEŃSTWO I HIGIENA PRACY

Streszczenie

Organizacje często używają systemu zarządzania bezpieczeństwem i higieną pracy. Podstawowe kompetencje menedżera w organizacji powinny także zawierać znajomość tego obszaru. Artykuł porównuje normalne modele kompetencji z podstawowymi zasadami higieny i bezpieczeństwa pracy, a także z zasadami podejścia procesowego. Wynikiem jest rekomendacja, żeby zwiększyć kompetencje w procesie zarządzania. Jednostka będzie uczyć się szerokiego zakresu specjalistycznej wiedzy przez długi czas.

Introduction

Safety at work is associated with human creativity. Complexity of technical systems is growing. Some owners of organisations are strongly focused on profit. Difficult life of the most people is against it. Safety at work has to step aside in some cases and statistics confirm this. Hence, there are always improvements that need to be put in place for safety at work. The solution is the active participation of managers. The question is their role in the new conditions of society.

1. Status of occupational health and safety management system

The occupational health and safety management system (OH&SMS) is the basic of competitiveness [31], part of the strategy [11] and part of the integrated management system of the organisation. It places emphasis on human safety in the processes [27], [29], which means to reduce safety risks [12]. Quote from [11][1] says that people must learn to: „understanding risks should be a life skill". The current status of occupational health and safety (OHS) can be described as disappointing. Safety instructions are not followed by the workers [19] or by the decisions of the managers [11], [15]; these are associated with reducing costs and increasing efficiency [24]. Publication [14] warns that organisations rely only on compliance with OHS and do not build necessary competencies. Tasks are being carried out by incompetent employees who often do not have any training. Only managers take a part in OHS training [17]. They often do not use personal protective work equipment (PPWE), the limits of dangerous substances are being exceeded, the marking of risk areas is forgotten and safe distances are not being respected [24]. Texts in [19], [28] refer to safety incidents due to poor equipment design. Steps of industries in OHS are not unified, prevention programs have yet to be formed [11], [14]. Greater consistency is needed in medical care. Measuring indicators in OH&SMS is difficult and inconsistent [14], [24]. Small to medium enterprises need more data about OHS as they currently do not follow most of the OHS principles [16].

2. Principles of occupational health and safety at work

3Principles of occupational health and safety at work are not only given by international norms of OH&SMS but also by a number of laws and regulations of a specific country (e.g. Labour Code of the Czech Republic [37]). Therefore it is not always clear to follow [11]. The authors in [1], [15] and [24] summarize the principles: adjust working conditions and set up working place for worker safety to analyze and to reduce risks, deal with emergency situations, use less dangerous technologies, use group protection of employees and establish instructions for safety of work. They point out next principles: the need for medical care providing, work classification, insuring of health competence and the prohibition of work for specified groups of people. All equipment must be checked, personal protective work equipment must be provided, hygiene must be ensured and injuries and illnesses from work recorded. The employer must be insured by law: „against employer liability for work injuries

---

[1]   Kol. Authors, *Review of the Workplace Health and Safety Strategy for New Zealand 2015 (WHSS). [online]* Working Paper. [cit.2012-03-10] Available from WWW: <http://www.dol.govt.nz/whss/ review/ international-strategy/page1.asp>

or illnesses from work" according to article [15][2]. This text describes that manager may himself provide competencies OHS of organisation if he has competence for it and the organisation has less than 500 employees. OH&SMS gives emphasis on prevention [29].

3. Principles of process approach

6The process approach is a set of activities with the transformation of inputs to outputs with added value for the customers ([5], [25] and [26]), no the organisational structure. The process approach is described by connections among the processes and the systems focusing on fulfilment of requirements even those of internal customers [2]. It relies on the team work and the self-control of skilled employee who knows customer requirements and process. This approach needs a responsible process owner (leader – [4], [25]). Management needs a basic analysis, processes measurements and the results to compare with planned goals, also identifying key causes, the first-rate change management in organisation and continuous improvement of processes – in [4], [5], [12], [13], [25] and [26]. Information for employees seems to be fundamental. The strategy, the processes goals and the automated assigning of costs to task are strongly connected in this approach. Decisions are formulated and the problems are immediately solved according to the needs of the processes. Text [25] adds that object arrangement finds application in workplace. The increase of productivity is necessary towards safety by improving of the control and by reducing of waste, no gross normalisation [4],[25].

4. Competencies of employees

The concept of competence has no stable meaning, which is confirmed by [14], [21], [23] and [36]. Competence according to [7], [8] is a summary of authorised powers and duties that are assigned to a specific authority. Competence from the pedagogical point of view is in [10][3]: „the ability of the know-how and the knowledge to apply it". Author [34][4] defines it in sense of to have right knowledge and know-how mainly. Key competence in [10][5] means: „the skills decisive for future social or professional life of a young man". According to [21][6] it is: „the ability to perform tasks required by workplace". The key competencies in [9] are estab-

---

[2] Kol. Authors, *BOZP u podnikatele se zaměstnanci – zaměstnavatel. [online]* Businessman minimum, BOZPinfo.cz, 2011, no.6. [cit.2012-03-05] Available from WWW: <http://www.ipodnikatel.cz/ Bezpecnost-a-ochrana-zdravi-pri-oraci/bozp-u-podnikatele-se-zamestnanci-zamestnavatel.html>

[3] Kol. Authors, *Kompetence. [online]* [cit.2010-12-12] Available from WWW: <http://cs.wikipedia.org>

[4] J. Truneček, *Management znalostí.* C.H.Beck, Praha 2004. ISBN 80-7179-884-3.

[5] Kol. Authors, *Kompetence. [online]* [cit.2010-12-12] Available from WWW: <http://cs.wikipedia.org>

[6] J. Kovács, *Kompetentní manažer procesu.* Wolters Kluwer ČR, Praha 2009. ISBN 978-80-7357-463-5.

lished for school education to learning, problem solving, communication, social, civil and labour life aspects. The ability to listen and communicate, behave appropriately in a group, using safe materials and tools, the ability to follow the rules, risks perception and approaches in crisis situations are important in terms of OHS, Author [6] discusses the issue of responsibility of all employees in safety culture with support of their creativity at the same time. Text [30] sees OHS as a long term part of culture of the organisation. The OHS competencies must be created not only for managers but for all stakeholders [11]. Individual's competencies in [18] influence subjective factors (level of confidence) and objective (management and evaluation).

5. Competencies of manager

Competencies of manager can be understood as a superior of a department in a hierarchical organisation or as a process owner. Managers perceive the reality differently than what is real according to researches in [14], [34] and [36]! Article [6][7] attributed by Fayol to managers in the process control to be: „healthy, clever, moral, with cultural knowledge generally, management skills, having ideas about next activities and being rich powerful abilities". He should have in [32][8]: „the ability to hire appropriate staff, educate them, inform them, measure their efficiency, rewarding them, protect their health, develop their leadership with successor educate aim, build culture and also the ability to cope with retirement". Manager must control safety by fulfil of rules [17], management of emergencies [30] and even with difficult automated systems and with support for multi branch employees [28]. He needs at the same time quality of employees [22] and their ideas. Its mission is to give them feedback and do not overload them, set goals and aimed to them. The authors [33] reported that the competencies must be appropriate to customer requirements. Manager should have know-how and technical skills [11]. He has been able to collect and analyse data, consider the risks importance and have a build a safety culture of workplace every day. Managers must learn to prevention and perceive the first safety of work and after its efficiency of people [14]. He must support health of employees, communicate with them, recognise them and eliminate waste in workplace [4]. In general, text states in [18] the ability of a holistic view, the need for responsibility and evaluation skills and self-education. It aids professional and personal

---

[7] R. Khilawala, *List of Different Types of Management Styles. [online]* [cit.2012-02-28] Available from WWW: <http://www.buzzle.com/articles/management-styles-list.html>

[8] V. Thomas, *Implementing a Successful Competency Model. [online]* Human Capital Institute, Workstream, Durgin, 2006, no.8. [cit.2012-03-12] Available from WWW: <http://www.workstreaminc.com/downloads/PDFs/HCI_Implementing_a_Successful_Competency_Model.pdf>

competencies with requirement of his overall assessment. Article [19] describes the manager competencies in OHS self-education, staff training according to their skills and promoting safety. He has assessed the safety level of workplace according to safety incidents statistics and own judgment. Author in [31] requires establishment of the roles and the responsibilities of each employee, clear principles of safety, preventing build on risk assessment, check PPWE, accidentally be prepared for safety reasons, monitor the movement in the organisation, training people periodically and review the safety documentation.

6. Competencies models with regard to process approach and safety at work

Author presents in [21] the incomplete list of 12 models of manager competencies. This article's model list is based on comparison with the process approach principles, which no deal with the functional places, applying measurement and control of process according to its characteristics in [29]. Subsequently, the content of model has been assessed towards the principles of OHS. Model M at first sight seems appropriate. However it describes the process psychologically. The process control of organisation is linked to a broader range of tasks together. The OHS issue is mentioned only and describes, that depends on the personality of the manager. In the model a set of process competencies is evident fade of the functional approach in the role of creating of an organisational structure, management processes and probably over-administration. The OHS issue is hiding behind the training of staff, improving processes and reporting. Model IPNS (IiP also in [3]) focuses mainly on interpersonal relationships and communication within the organisation in the context of work efficiency. Manager's qualification consists of leadership ability, management and development of happy people (which in Maslow also involve safety) that acknowledge, educates and incites to co-operation. The results are basis of improvements in specific areas. The OHS issue is ran low on benchmarking competencies of employees. Model manager competencies matrix for leadership of the team is also incomplete, but leads to a useful leadership of process. The OHS issue includes listening to others, work conditions creation and points to the self-control. Malcolm Baldridge model is considered the best of models focused on customer satisfaction and business results of the organisation, but psychological view of manager is suppressed and process approach is not so developed. Strategic planning and human resource management in general could be assigned only to OHS. The EFQM model is difficult, but it has the process approach the most developed. The OHS issue mentions in the care of employees and their satisfaction with their education and in the creation of working conditions. The analysis also shows the start of made to measure applications of competencies models for the organisation from the existing types (in [21] combined). Their creation influences designer focus. Author

[32] states an example of such a competencies model. It considers strategy of organisation and the benefits of small to medium enterprises learn from others in their successful and in review of their incidents, text [30] too. It builds on legislation, on know-how and human individuality and satisfaction of internal customer. The OHS issue, however, ranks among the benefits. It forms a complex work profile of individual processes. Important matters are the inclusion of change control, communication and business results for manager competencies, which [30] confirms. Text [17] recommends with the pressure on prevention to derive manager competencies from the 8 quality management principles, Author [30] further prompts to control OHS risks according to current analyse of data in competencies model. Text [27] proceeds from setting safety of work indicators to competencies, which are checked by the system audit. The competencies model in [33] discusses the complexity of technical systems grows in the preproduction stage in relation to safety of people. It is recommended to utilize experiences of staff and to develop their ability to ensure dependability and evaluate the impacts of the product. Manager competencies in OHS area in [20],[23] should include: solving of a problem situation, communication and listening, assessing of work-procedures according to safety without forgetting of substantial area and sources. Demand of active learning acceded. Procedure of derivation of causes from consequences of incident is in [35].

Summary

The result of research of competencies models is that there are many models for a hierarchical structure. Lack of a good process competence not only managers is also confirmed in texts [21] and [36]. The definition is not focused on processes and a low perceived social component. Norms of QMS and OHS are integrated, but practical links lack. Principles of process approach are contained in the rest of models than principles of OHS according to this research. No competencies model contains OHS area with the full principles amount. The legislative of OHS principles is strict, but little help to processed autonomy of employee. Process approach (as described in norm [26]) does not require risk management, which is necessary for OHS. The concept of TQM consists of the direction of risk control and care about a man, therefore, competencies models have a chance to improve. It is possible to recommend the addition of the competencies about following knowledge. The best place to monitor events from the perspective of OHS based on it is the workplace, as in book [4]. Manager must perceive workplace and do everything to reduction of its dirt, danger and stress according to the 3K tool. Greater consideration of OHS must therefore be given to the internal customer of organisation and on the secondary processes. Teamwork and the process owner are promoted.

Self-control is self-discipline, which all employees in this country have a lot to learn, but it has fundamental importance for safety at work. Variations in the procedures are beneficial for the fulfilling of OHS emergency plan by view of the situation. The cost of OHS can be assigned directly to the tasks in the process. Manager must measure OHS indicators (number of incidents, number of absences, the cost of PPWE), to ensure the prevention or immediately resolve the nonconformities. He may also link knowledge from risk analysis of the organisation and also from new technologies. The manager role points out the potential risks to the use of appropriate PPWE and safe practices. The need for greater communication and listening ability (being a leader) is the role of manager. Competence must take account of all age categories. Manager competencies also include leading a moral involvement people in process improving with OHS and their satisfaction. Manager must be a good example also in OHS area unlike article [12], which follows from publications [27] and [37]. Competencies represent a wide range of know-how, which an individual learns a long time. Topic process competence of safety of work is so extensive that it was not possible to cover all the issue in a limited space.

Bibliography

[1] M. Doleček, *Pracovně právní problematika. [online]* Businessinfo.cz, 2009, no.8. [cit.2012-03-05] Available from WWW: <http://www.businessinfo.cz/cz/clanek/orientace-v-pracovnich-ukonech/ pracovnepravni-problematika-opu/1000818/461356>

[2] M. Grasseová et al., *Procesní řízení ve veřejném i soukromém sektoru*. Computer Press, Brno 2008. ISBN 978-80-251-1987-7.

[3] P. Chvátal, *Desetkrát PRO zavedení standardu Investors in People v době ekonomické recese. [online]* Business Excellence Consulting, 2009. [cit.2012-03-05] Available from WWW: <http://www.vecon.cz/ index.php/sluzbyúinvestors-in-people>

[4] M. Imai, *Gemba Kaizen*. Computer Press, Brno 2008. ISBN 80-251-0850-3.

[5] J. Jedlička, *„The wrong..."* In.: Workshop Praktické zkušenosti s normou ISO9001:2008, Praha 2012, no.2, pp.5-31.

[6] R. Khilawala, *List of Different Types of Management Styles. [online]* [cit.2012-02-28] Available from WWW: <http://www.buzzle.com/articles/management-styles-list.html>

[7] Kol. Authors, *Všeobecná encyklopedie Diderot*. Diderot, Praha 1997, part 2. ISBN 80-85841-33-9.

[8] Kol. Authors, *Encyklopedický slovník*. Odeon, Praha 1993. ISBN 80-207-0438-8.

[9] Authors, *Klíčová kompetence. [online]* [cit.2010-09-20] Available from WWW: <http://cs.wikipedia.org>

[10] Kol. Authors, *Kompetence. [online]* [cit.2010-12-12] Available from WWW: <http://cs.wikipedia.org>

[11] Kol. Authors, *Review of the Workplace Health and Safety Strategy for New Zealand 2015 (WHSS). [online]* Working Paper. [cit.2012-03-10] Available from WWW: <http://www.dol.govt.nz/ whss/review/ international-strategy/page1.asp>

[12] Kol. Authors, *Systémy managementu jakosti (ISO). [online]* [cit.2012-02-28] Available from WWW: <http://www.financemanagement.cz/080vypisPojmu.php?X=Systemy+managementu+jakosti+ISO&IdPojPa ss=40>

[13] Kol. Authors, *Řízení procesu. [online]* [cit.2012-02-28] Available from WWW:
    <http://managementmania.com/rizeni-procesu>

[14] Kol. Authors, *OPITO calls for common approach to measuring competence in global oil&gas. [online]*
    2011, no.11. [cit.2012-03-10] Available from WWW: <http://www.myoilandgascareer.com/news-
    article/opito-calls-for-common-approach-to-measuring-competence-in-global-oil-gas>

[15] Kol. Authors, *BOZP u podnikatele se zaměstnanci – zaměstnavatel. [online]* Businessman minimum,
    BOZPinfo.cz, 2011, no.6. [cit.2012-03-05] Available from WWW: <http://www.ipodnikatel.cz/Bezpecnost-
    a-ochrana-zdravi-pri-oraci/bozp-u-podnikatele-se-zamestnanci-zamestnavatel.html>

[16] Kol. Authors, *Malé podniky méně dbají na bezpečnost při práci. [online]* ČTK. [cit.2012-02-
    28] Available from WWW: <http://www.novinky.cz/kariera/167525-mala-podniky-mene-dbaji-na-
    bezpecnost-pri-praci.html>

[17] Kol. Authors, *Competency and Quality Management. [online]* Teranga Gold Corporation. [cit.2012-02-28]
    Available from WWW: <http://www.terangagold.com/English/CorporateResponsibility/ Competency and_
    Quality_Management/default.aspx>

[18] Kol. Authors, *Způsobilost a kompetence manažerů. [online]* [cit.2012-03-05] Available from WWW:
    <http://www.univerzita-online.cz/mng/psychologie-v-ekonomicke-praxi/pracovni-zpusobilost-kompetence-
    zamestnance/>

[19] Kol. Authors, *Bezpečnost práce a pracovní jednání zaměstnance. [online]* [cit.2012-03-05] Available from
    WWW: <http://www.univerzita-online.cz/mng/psychologie-v-ekonomicke-praxi/bezpecnost-prace-
    pracovni- jednani-zamestnance/>

[20] P. Koníř, *Metody vedoucí k rozvoji klíčových kompetencí. [online]* Final Work. Národní institut pro další
    vzdělávání, Praha 2008. Available from WWW: <http://clanky.rvp.cz/wp-content/upload/prilohy/
    2612/zaverecna-prace.pdf>

[21] J. Kovács, *Kompetentní manažer procesu.* Wolters Kluwer ČR, Praha 2009. ISBN 978-80-7357-463-5.

[22] K. Kvapil, *Nebojte se občas řídit svého šéfa. [online]* Právo. [cit.2012-03-04] Available from WWW :
    <http://www.novinyk.cz/kariera/260585-nebojte-se-obcas-ridit-sveho-sefa.html?ref=ostatni-clanky>

[23] H. Lang, *Management teorie a praxe.* C.H.Beck, Praha 2007. ISBN 978-80-7179-683-1.

[24] O. Lhotský, *Metody a techniky organizace a normování práce. [online]* Pracovní podmínky, bezpečnost
    a ochrana zdraví při práci. Wolters Kluwer ČR, Praha 2012. [cit.2012-01-12] Available from WWW :
    <http://www.mzdovapraxe.cz/archiv/dokument/doc-d1017v993-metody-a-techniky-organizace-a-
    normovani-prace/?search-query=$issue=3I7>

[25] J. Lubina, *Řízení jakosti.* [Lectures] Technical University of Liberec, HF, Liberec 2002.

[26] Norm ČSN EN ISO 9001:2009 *Systémy managementu kvality.* ÚNMZ, Praha 2009.

[27] Norm ČSN OHSAS 18001:2008 *Systémy managementu bezpečnosti a ochrany zdraví při práci.* ČNI, Praha
    2008.

[28] V. Pelantová, *Kvalita technických systémů.* In.: International Conference EQW „Kvalitou k nejlepším
    výsledkům", Section „Spolehlivost a management rizik technických systémů". CD, ČSJ, Praha 2011, pp.1-5.
    ISBN 978-80-02-02348-7.

[29] V. Pelantová, J. Havlíček, *Integrovaný systém managementu pro výuku.* [Textbook] Technical University of
    Liberec, FM, Liberec 2011. ISBN 978-80-7372-816-8.

[30] M. Sedgwick, *Power generation Company, gets to grips with Process Safety. [online]* HazardEx, 2011,
    no.12. [cit.2012-02-28] Available from WWW: <http://www.hazardexonthenet.net/article.aspx?AreaID=
    6&ArticleID=46861>

[31] J. Škarka, *Aspekty bezpečnosti práce a ekologie v činnosti manažera údržby.* In.: International Conference
    Údržba – Maintenance 2010. Conference Reports, ČSpÚ, Praha 2010, pp.192-195. ISBN 978-80-213-2115-
    1.

[32] V. Thomas, *Implementing a Successful Competency Model. [online]* Human Capital Institute, Workstream, Durgin, 2006, no.8. [cit.2012-03-12] Available from WWW: <http://www.workstreaminc.com/downloads/PDFs/HCI_Implementing_a_Successful_Competency_Model.pdf>

[33] M. Trapp, J. Heidrich, J. Dörr, *Competencies. [online]* IESE. [cit.2012-03-10] Available from WWW: <http://www.iese.fraunhofer.de/en/competencies.html>

[34] J. Truneček, *Management znalostí.* C.H.Beck, Praha 2004. ISBN 80-7179-884-3.

[35] J. Veber, J et al., *Management kvality, environmentu a bezpečnosti práce.* Management Press, Praha 2006. ISBN 80-7261-146-1.

[36] S. Zaffron, D. Logan, *Tři zákony produktivity.* Computer Press, Brno 2011. ISBN 978-80-251-2658-5.

[37] Labour Code of the Czech Republic, no. 262/2006 Sb., in the last sense of laws.