Ergonomic systematic work environment management in mining industry - a participatory approach

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1. Introduction

Within the project "Mine Health - Sustainable development for miners' welfare, health and work in the Barents Region", Umeå University offered to supervise safety managers within the Aitik mine to improve the physical work environment as in the provision "Systematic Work Environment Management" (1).

2. Objectives

The goal with the project was to supervise the safety managers in ergonomic systematic work environment management and actively involve the crusher operators in the process, in order to develop solutions to improve the physical environment and the crusher operators' physical health.

3. Methods

A revised form of the Nordic Council of Ministers questionnaire was used collecting information about the physical work environment and the musculoskeletal symptoms. The questionnaire was sent out to 20 crusher operators working in the Aitik mine. Risk assessments of the ergonomic work environment were made using the scientific method Quick Exposure Check (2). A working group was formed with representatives from the crusher operators in all five shifts, and the safety managers.

4. Results

Of the 20 crusher operators, 90% experienced that they often or always work with the neck bent forward or backward, and 60% experienced that they often or always have a sedentary work. The risk assessment showed very high risks to develop symptoms in the neck, and high risks for the back and wrist/hand. Musculoskeletal symptoms were most prevalent in the neck, shoulder and back. An evaluation of the crusher operators' physical work environment and musculoskeletal symptoms after different physical and ergonomic changes is planned in the beginning of 2014, and will be presented at the NES conference 2014.

References

Work Environment Authority. Systematic Work Environment Management, 2001:1.
David G, Woods V, Li G, Buckle P. The development of the Quick Exposure Check (QEC) for assessing exposure to risk factors for work-related musculoskeletal disorders. *Appl Ergon 2008;39(1):57-69.*