

Focus on IFA's work

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Prevention of occupational accidents: The Prevention Index in practice

Problem

Standardized monitoring methods are a suitable instrument for systematically assessing accident risks and the need for preventive activity in companies over the course of time. The prevention index (PI) of the German Social Accident Insurance Institution for the Woodworking and Metalworking Industries (BGHM) is one such monitoring method. During inspections in companies, the BGHM's labour inspectors use the index for quantitative evaluation of the underlying conditions in the company. This is to facilitate evaluation of the efficacy of preventive measures and comparison of changes in the company that are relevant to occupational safety and health.

A project conducted jointly with the IFA was to examine whether the PI reliably reflects the underlying conditions in the technical, organizational and personal (TOP) areas and whether the PI values enable conclusions to be drawn regarding the accident risk.

Activities

The labour inspectors at the BGHM have been using the PI to evaluate the underlying TOP conditions in the member companies since 2010. Values between 9 (outstanding) and 1 (unsatisfactory) are assigned for twelve specific areas.



The prevention index evaluates the technical, organizational and personal (TOP) fields of action relevant to occupational safety and health.

The project is currently at the practical implementation phase. Relationships between the PI value and the incidence and severity of accidents are being studied, and possibilities for extension of the PI to other areas are under review.

Results and Application

Study of the quality criteria of reliability and validity showed that the PI evaluation instrument satisfied these criteria, since:

- A strong consistency was observed between evaluations of the same company performed under the same conditions but by different persons
- The key questions arising from practical experience also actually reflect the area to which they refer (technical, organizational or personal)
- A relationship exists between PI values and the accident rate

The prevention index is used routinely in the BGHM's inspection activity in the area of production. Application of the PI to tasks in administration is under review. The database is growing continually as a result and permits more detailed interpretations.

Area of Application

Prevention services of the German social accident insurance institutions

Expert Assistance

IFA, Division 1: Information technology – Risk management