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FACTS

European Agency for Safety and Health at Work

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Assessment, elimination and substantial reduction of occupational risks.

Summary of an Agency report

Introduction

Risk assessment is the basis for successful health and safety management, and the key to reducing work-related accidents and occupational diseases. If implemented well, it can improve not only workplace safety and health, but business performance in general.

The report supports the European 'healthy workplaces' campaign 2008/09 on risk assessment by providing information on successful interventions in the workplace to eliminate or substantially reduce risks. The report is aimed at those who are responsible for carrying out risk assessments in the workplace and for making decisions on preventive measures.

Eighteen cases and seven snapshots (shorter cases) were drawn from a range of occupations and economic sectors across Europe. They illustrate how specific companies have assessed and managed their risks. Some have eliminated or prevented the identified risk, while others have managed to reduce the risk drastically. The actions taken to assess the risks and to manage them are transferable to similar jobs and economic sectors and to other EU Member States. Of course, they will need to be adapted to the specific situation of each industry or workplace.

Key conclusions of the report

There are a number of risks which can be completely avoided or eliminated. The remaining risk is then assessed as very low or close to zero. The report shows how such results can be achieved through cases dealing with risks from electric current, manual handling, unprotected handling of dangerous substances or exposure to noise.

In other cases where the complete elimination of risks is not possible, most actions described aim 'to combat the risks at source', i.e. the prevention action is focused at the source of the risk. This often results in a substantial risk reduction to a much lower level. The report shows how these results are obtained in areas such as accident prevention, work organisation, exposure to dust, sawdust or electromagnetic fields.

Basic success factors

The basic success factors identified in the report for effective risk assessment are as follows:

- A detailed risk assessment is the logical and structural precondition for an effective risk elimination/reduction.



Photo by Matti Saari and by courtesy of Skanska Finland.

- Strong motivation on the part of an important and powerful group (e.g. a department, a workers' steering committee, the employer). High motivation by the initiators of the action to manage the risks or a specific risk and no strong objection by other parties in or outside the institution.
- Support from top management. This is essential to ensure that necessary resources such as budget, human resources, equipment, etc. are made available for the project.
- Involvement of relevant actors, e.g. workers themselves, human resources, financial department, OSH practitioners, etc. An important group that has to be motivated and involved from the beginning are the workers. They should be involved not only in the risk analysis itself but also during the identification and implementation of possible solutions. Their practical and detailed knowledge and competence is often needed to develop workable preventive measures.
- A good analysis/knowledge of effective potential solutions, best practice and scientific or technological innovations available.
- A trusting and cooperative atmosphere among the key actors involved in the risk assessment process.
- Absence of major obstacles to the adoption of the preventive or protective measures. These might include:
 - economic barriers such as lack of economic resources or negative cost-benefit assessment;
 - a lack of available solutions such as alternative technologies, machinery, work processes;
 - negative effects for others (workers, departments) by transferring the risk to another area.

Additional success factors

Besides the basic success factors, which are common to all the cases, the analysis of the cases shows that there are some additional success factors that motivate actors to go further than usual to achieve results that are far above average. Some of these additional factors are:

- a high motivation to be the best in the sector, or just to be as good as possible, or to improve the image of the company or to improve the image of the safety and health department;
- the key role played by the workplace concerned (or the people at risk) in the work flow;
- existing difficulties in replacing sick workers;
- the existence of internal capacities to identify (and develop) effective solutions;
- the availability of simple solutions for high risks;
- proper monitoring of the preventive or protective measures adopted (are the measures actually being implemented? are they working? are they adequate?);
- the availability of external support for complicated or advanced solutions;
- motivation to reduce the related costs of accidents and diseases in high-risk occupations or areas.

If such additional factors are added to the basic success factors, a strong risk reduction or even the elimination of the risk seems to be feasible.

Most of the case studies feature a mixture of preventive measures (combating risk at source, adapting the work to the individual, adapting to technical progress, giving appropriate instructions to workers, etc.). The adoption of these interconnected measures is also a key success factor.

Benefits of carrying out proper risk assessment

Some of the benefits of carrying out a proper and detailed risk assessment and eliminating or substantially reducing risks at the workplace are clearly described in these cases:

- healthy and safe workplaces (less sick leave, lower staff turnover, a motivated workforce, fewer complaints, a better work environment, less discomfort due to high levels of noise, working in awkward postures, high temperatures, etc.);
- a reduction in costs arising from occupational accidents and illness;
- in some cases the overall costs of the solution are lower than the cost of the previous solution/situation;
- the implemented changes (the reorganisation of the workplace, new or adapted machinery, new work processes) are not only

safer and healthier but also more efficient and more productive;

- the solution adopted means that the job can be done by a wider range of workers (due to a decrease in the amount of physical strength needed, for instance).

Systematic risk assessment therefore improves workplace safety and health and business performance in general.

Case study — Preventing needle stick injuries (NSIs) — Hospitals Baden-Württemberg

This project introduced new safety equipment, accompanied by training and education measures, in an effort to reduce the NSI prevalence among hospital staff. Within 12 months NSIs had been reduced to zero.

Case study — Reducing the manual handling of loads — Azimut Yachts

A preliminary assessment of the risks involved in the manual handling of loads at this boatyard showed that the shaft assembly operations were particularly critical. In order to reduce the risks involved, a trolley was built that completely changed the shaft assembly procedure, thus reducing the necessity for the manual handling of loads.

How to obtain the report

The full report is available in English on the Agency's website at: <http://osha.europa.eu/en/publications/reports/TEWE09001ENC/view> where it can be downloaded free of charge.

This factsheet is available in all EU languages at: <http://osha.europa.eu/en/publications/factsheets>

Further information

'Healthy workplaces. Good for you. Good for business. A European campaign on risk assessment' is the theme for the European campaign 2008/09 being run by the European Agency for Safety and Health at Work (EU-OSHA) on more than 30 countries including all EU Member States. This factsheet has been produced to support the campaign.

Other factsheets in the series and further information on risk assessment are available at <http://osha.europa.eu/topics/riskassessment>.

This resource is being continually developed and updated. <http://hw.osha.europa.eu> is the direct link to the European campaign.

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