



Achieving better safety and health in construction

Managing construction projects — Summary of an Agency report

Introduction

There is, throughout the EU, a growing recognition that standards of occupational safety and health (OSH) in construction have to be improved. Each year about 1 300 workers are killed, another 800 000 injured and countless more suffer ill health (1). The human suffering caused by accidents and ill health is distressing to all concerned, the extent of which is impossible to calculate. The financial losses are considerable.

No one should need convincing that the management of safety, health and welfare in the industry should have the highest priority.

The 2004 European Week for Safety and Health at Work is dedicated to construction. The Agency has collected cases from across Europe where actions have been taken to achieve better standards of safety and health. The report reflects the standards of OSH in construction, but demonstrates what, with effective action, can be achieved to improve these standards.

Legislation

Council Directive 92/57/EEC highlights the coordination required by the various parties at the project preparation stage and during the construction phase.

- ✓ Clients, or the project supervisor, have to appoint one, or more, coordinators for safety and health matters.
- ✓ Clients, or the project supervisor, have to ensure that a safety and health plan is prepared before the construction phase starts.
- ✓ The project supervisor, or if appropriate the client, has to take safety and health into account when designing the project.
- ✓ During the construction phase, the coordinator(s) have to ensure that risks are adequately managed and the health and safety plan is taken into account. Cooperation between employers in matters of safety and health has to be implemented and procedures monitored.

Sixteen cases of action taken from across Europe were chosen. The report groups these cases together, highlighting actions taken at:

- ✓ project preparation phase;
- ✓ construction phase;
- ✓ post-construction (maintenance) phase.

However, the nature of the case studies means that actions may be taken throughout the project.

1. Project preparation phase

The client

Good standards of safety and health on a construction project start with the decisions made by the client who procures the work. It is at this stage that the whole safety and health climate of a project is established. Contracts need to be awarded on value for money, which means achieving something that fits the purpose, fulfils user needs, and achieves a balance between quality and costs throughout its life. It is of fundamental importance, when selecting contractors and others, to ensure that they are able to carry out the work competently, including managing OSH.

Planning

Sufficient time should be given for the planning process. The designer, the coordinator for safety and health, and the contractor should be appointed as early as possible. This should enable the project design to be discussed and to ensure that the specification and schedule of works for the project is as safe, and without risk to health, as the circumstances allow. Consideration needs to be given to how the design will be constructed. Hazards should be eliminated whenever possible, and risks from hazards that cannot be eliminated should be reduced. Information should be provided on residual risks if they are significant. It is often useful for the contractor and designer to liaise during the planning process.



(1) Eurostat, ESAW 1999.

Coordination of key players: 'Construction safety partnership', Ireland

An Irish study into fatal accidents highlighted that at least 25 % of these were directly attributable to the pre-construction phase of the project. Part of this project involves the setting-up of a register of competent 'Project supervisors design stage' (PSDS). These have a key role, under Irish legislation, in reviewing the design with the objective of minimising risk during the construction phase.

Designing out risk — United Kingdom

Steel framed buildings are a very common structure used for new buildings. Steel beams and columns have to be lifted by crane and fixed into position when such buildings are constructed. It is customary for this operation to be carried out by wrapping lifting slings around the steel and then lifting it. There is a risk of the steel slipping out of the slings and falling. However, by designing in lifting attachments such as pre-drilled holes, lifting shackles can be used and the risk eliminated.

3. Post-construction (maintenance) phase

All new buildings should be designed to allow safe maintenance. Existing buildings may have been designed without any thought given to safe maintenance. In all cases the same principles of OSH management apply as during the construction phase. Information from the client about the structure is important. An additional factor that may have to be taken into account is non-workers who may be present and be affected by the maintenance work.

Maintenance work in occupied premises — Italy

Work was carried out in parts of an old monastery, now used as a library, museum and gallery. In order to install safety and lighting equipment, extensive construction work had to be carried out. Other persons, unconnected with the work, could not be excluded from the work area. The company Quasco, worked out the safety and coordination plan for this project, and acted as health and safety coordinator during the construction phase. They ensured that the protective measures protected all persons at risk. They also defined safety measures which could be useful for future maintenance work.


2. Construction phase

Good standards of OSH during the construction phase are only achieved by good management. Managers need to ensure that the work is planned, organised, controlled, monitored and reviewed, to ensure good standards of OSH. All persons at work should be trained and competent, and the workers should be consulted on OSH matters, with coordination between the different employers carrying out work.

Training – Greece, Ireland, the Netherlands

To manage a construction project well, all persons working, including managers, need to be trained and competent to carry out their tasks. Training helps people acquire the skills, knowledge and attitudes to do their job well, and without risk to their own, and others, safety and health. The Egantia motorway project in Greece, the "Safe Pass" mandatory training in Ireland, and the management system used by Mourik in the Netherlands, all demonstrate the importance of training.

Monitoring and consultation with the workers — Finland

The  safety observation method was introduced in Finland in 1992 to measure the safety level of building sites. Measurement is performed by making a tour of the entire site and entering observations regarding correct/incorrect procedures on the inspection sheet. The aspects covered include working habits, scaffolding and ladders, machinery and equipment, protection against falling, electricity and lighting, and order and tidiness. On the demonstration building site, the method proved to be both convenient to use and efficient. One important factor of the system is that it is carried out jointly by management and workers.

Further information

The full report is available in English on the Agency's website at <http://agency.osha.eu.int/publications/reports/> and can be downloaded free of charge.

The printed report *Achieving better safety and health in construction*, European Agency for Safety and Health at Work, 2003, ISBN 92-9191-073-2, can be ordered from the Publications Office of the European Communities in Luxembourg (<http://publications.eu.int>) or from its sales agents. The price is EUR 25 (excluding VAT). This factsheet is available in all EU languages at: <http://osha.eu.int/ew2004/>

