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# Health and safety on small construction sites

Construction is a risky business, with nearly 13 workers per 100 000 being killed in construction, as against five per 100 000 in the all-sector average (1). Construction work also exposes workers to a wide range of health problems: from asbestosis to back pain; hand—arm vibration syndrome to cement burns. This factsheet gives basic advice on health and safety in construction, but cannot provide detailed guidance. It is recommended that you contact your relevant enforcing authority or other bodies before starting work if you require further advice.

## Before work starts on site

Health and safety should be designed into constructions, before, during and after the building phase. It is cheaper and easier to control the risks to workers in construction before work starts on site, for example by:

- putting in place a purchasing policy for machinery and work equipment (for example, buying tools with low noise and vibration emissions);
- setting health and safety requirements in tender specifications (meeting national legislation as a minimum);
- planning the work process to minimise the number of workers who could be harmed (for example, schedule noisy work when the least number of workers are likely to be exposed);
- starting your control activities before getting to site (for example, by planning, training, site induction and maintenance activities);
- setting down the procedures for effective consultation and participation of workers on OSH issues;
- ensuring all persons, including managers, are trained and able to carry out their work without risk to the safety or health of themselves or other workers.

## Management on site

Employers, with project supervisors, must cooperate and protect workers' health and safety. This can be achieved by:

- avoiding risks to all workers;
- evaluating risks that cannot be avoided;
- combating risks at source;
- using collective measures to protect workers;
- using individual measures where there are no other alternatives;
- establishing emergency procedures;
- informing workers of the risks present and the necessary control measures;
- ensuring the appropriate training is given.

The process of evaluating risks that cannot be avoided is called a risk assessment. It should identify:

- potential dangers (hazards);
- who might be harmed and how seriously;
- how likely this harm might happen;
- the actions required to eliminate or reduce the risk to workers;
- which actions should be taken first.

The control measures should be put in place and checks made to ensure that they are working and are meeting legal requirements.

### Key hazards and risks

There are many ways to be killed, injured, or suffer ill-health on a construction site, including:

- falling from a height;
- being involved in a vehicle accident;
- getting an electric shock;
- being buried during excavation work;
- being struck by falling material;
- breathing in asbestos fibres;
- suffering a bad back from handling heavy materials;
- coming into contact with dangerous substances;
- suffering hearing loss from loud noise.

## Worker consultation

Consulting the workforce on health and safety measures is not only a legal requirement, it is an effective way to ensure that workers are committed to health and safety procedures and improvements. Employees should be consulted on health and safety measures and before the introduction of new technology or products.

## Further information

This factsheet has been produced to support the European Week for Safety and Health at Work 2004. Other factsheets in the series and further information on construction are available at http://ew2004.osha.eu.int. This source is being continually updated and developed. Information on EU safety and health legislation can be found at http://europe.osha.eu.int/legislation/.

(1) Eurostat, *Statistics in focus — Population and social conditions*, Theme 3, 16/2001.

## The checklist

This checklist provides a series of questions about common dangers on small construction sites. It can be used as a starting point to look for dangers on site, but is not a substitute for a full risk assessment; a short checklist such as this cannot cover all hazards ([2]).

### Checklist for preventive action

- ✔ Are dangerous substances on site being properly stored and used?
- ✔ Are suitable protective measures being used to prevent or reduce exposure to dust (for example, wood, cement, silica)?
- ✔ Is there asbestos on site?
- ✔ Are all persons on site wearing proper head protection and footwear?
- ✔ Are there any ways that a risk can be controlled without using personal protective equipment (PPE)?
- ✔ Are workers using the right PPE for the job?
- ✔ Is all relevant plant, machinery and equipment (including PPE) CE marked and correctly labelled?
- ✔ Is the site fenced so that the public cannot get in?
- ✔ Are measures in place to protect members of the public (such as persons passing by the site)?
- ✔ Can everyone get to their place of work safely and work there safely? For example, is there safe access on scaffolding?
- ✔ Are the appropriate signs in place (for example, traffic routes, authorised personnel)?
- ✔ Is the site tidy, well lit and well laid out?
- ✔ Have you provided sufficient welfare facilities for workers?
- ✔ Are adequate fire precautions in place (for example, fire extinguishers, escape routes)?
- ✔ Are there first-aid facilities?
- ✔ Are existing power lines (buried or overhead) identified and systems of work in place for dealing with them?
- ✔ Are precautions in place to ensure that electrical systems are maintained in a safe condition?
- ✔ Are vehicles and people kept apart?
- ✔ Are the vehicle and plant operators suitably trained and, where necessary, licensed?
- ✔ Are traffic routes maintained in a safe condition?
- ✔ Is there adequate clearance around slewing vehicles?
- ✔ Do the machines' safety devices (such as sound signals, guards) work?
- ✔ Have the lifts and hoists been properly installed and checked by competent persons?
- ✔ Is all the work equipment and machinery maintained in a safe condition?
- ✔ Are scaffolds erected, altered and dismantled by competent people?
- ✔ Do you make checks of the conditions of the scaffolding periodically and after adverse weather conditions (such as high winds)?
- ✔ Are measures in place to stop workers and objects from falling?
- ✔ Has the need for manual handling been eliminated where possible (for example, by the use of mechanical equipment)?
- ✔ Is material supplied in manageable sizes and weights, where possible, to reduce the risk of back injury?
- ✔ Have workers been instructed and trained in how to lift safely?
- ✔ Has an assessment been made to reduce the risk of work-related upper limb disorders (for instance, in concrete casting, reinforcing, welding or painting)?
- ✔ Are all measures to reduce exposure to noise and vibration in place?
- ✔ Are there arrangements for health surveillance where necessary?
- ✔ Is there fall protection everywhere that requires it?
- ✔ Are fragile roofs, and parts of roofs (such as skylights) clearly identified?
- ✔ Are holes protected with clearly marked and fixed covers to prevent falls?
- ✔ Are there safer ways to do a job other than off a ladder (for example, by using mobile access equipment)?
- ✔ Are any excavations adequately supported or otherwise constructed to minimise the risk of collapse?
- ✔ Is there protection to stop vehicles and people falling in excavations?
- ✔ Does a competent person regularly inspect the excavation?

([2]) For a list of minimum health and safety requirements for construction sites, see Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites.

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