Ministry of Social Affairs and Health, Finland

30 March 2007

Government Decision on the Safety of Construction Work

(629/1994, amendments up to 702/2006 included)

Chapter 1 General provisions

Section 1 Scope of application

This Decision shall be applied to construction, renovation and maintenance of buildings or other structures on or under ground level or in water, as well as to installation, demolition, earthwork, hydraulic engineering and construction design in connection with such construction, renovation or maintenance.

Section 2 Definitions

For the purposes of this statute:

- shared construction site means any workplace referred to in the scope of application above where more than one employer, or more than one selfemployed worker, working in return for compensation, operate simultaneously or successively;
- client means any person or organisation conducting a construction project, or other actor who directs or supervises a construction project, or, where no such actors exist, the contractor;
- 3) *project supervisor* means any main contractor appointed by the client, or any employer using the main authority, or where there is no such employer, the client itself; and
- 4) *self-employed worker* means any person who carries out work on the basis of a contract, subcontract or supply contract agreement, except for an employment contract, and who does not employ any other employees on the same construction site.

Section 3

General duties of the parties of a construction project

(1) The client, designer, employer and the self-employed worker shall together and each for their part ensure that no danger arises from the work to those working on the construction site or other persons in the zone affected by the work.

- (2) The employees shall, in accordance with the instruction and guidance provided by the employer, take care of both their own and the other employees' safety and health, if their work affects other workers.
- (3) The employer and employees shall cooperate to maintain and improve occupational safety at the workplace. The employer shall see to that the employees get information on matters affecting safety and health at the workplace early enough, and that these matters are appropriately and early enough dealt with between the employer and the employees, or their representatives.

Section 3 a Division of general duties

- (1) The employers shall take care of the safety and health of their employees carrying out construction work.
- (2) The client shall appoint a project supervisor for the shared construction site if the construction project requires expertise in coordinating operations, general designing of the site, and carrying out measures concerning the general safety on the site. If no project supervisor has been appointed for the shared construction site, the client itself is responsible for the duties of the project supervisor.
- (3) The client shall ensure that the project supervisor appointed by the client possesses the expertise and actual authority to take care of the duties referred to in section 51 of the Occupational Safety and Health Act (738/2002).
- (4) Those carrying out construction work simultaneously or successively at a shared construction site shall in cooperation coordinate their tasks in such a way that the duties concerning occupational safety will be fulfilled on the whole construction site. The client or project supervisor shall carry out the measures caused by this coordination in accordance with section 51 and 52 of the Occupational Safety and Health Act.
- (5) Separate provisions shall be issued regarding the duties of designers.

Chapter 2

Taking account of safety and health at work in connection with a construction project

Section 4 Design and preparation of a construction project

- (1) When designing and preparing a construction project, the client shall ensure that the practical construction work will be taken into account in the architectural and constructional design, design of technical systems, and design of arrangements for the practical construction work in a manner that enables to carry out the work safely and without causing any harm to employees' health.
- (2) The client shall ensure that the prevention of hazards and risks is taken into account when planning the schedule, duration and coordination of work and work phases.

- (3) The client shall coordinate the implementation of the plans referred to in subsections 1 and 2.
- When giving the designing assignment, the client shall provide the designers with all information they need to carry out their obligations according to section 57 of the Occupational Safety and Health Act.
- (5) Before the construction project ends, the client shall draw up written instructions for the use, maintenance and repair of the building, containing sufficient data on occupational safety and health matters.

Section 5

Documents to be drawn up by the client, and follow-up of their implementation during the construction work

- (1) The client shall draw up a safety document for the design and preparation of the construction work, taking account of the requirements of the construction project. The safety document shall:
 - 1) clarify and present the hazards and risk factors depending on the features, conditions and nature of the construction project, as well as give any necessary information concerning occupational safety and health related to the construction project; also the hazards and risk factors related to work referred to in annex 2 shall be clarified and identified; and
 - 2) take account of industrial or other comparable activities relating to the construction site.
- (2) When preparing the construction project on the basis of separate contracts, the client shall draw up written safety rules in order to ensure the safety of employees and other persons working at the site and to coordinate the various tasks and work phases.
- (3) The client shall draw up a written code of practice and require that the parties of the construction project shall follow the code of practice in matters concerning safety and health at work
- (4) The client shall take care of the follow-up of the implementation of the documents referred to in this section.

Section 5 a

Client's responsibility to update documents, give information and follow up the implementation of measures

- (1) The client shall keep the data of the documents mentioned in section 5 up to date.
- (2) The client shall ensure that the data of the written documents referred to in section 5, as well as any changes of them, are forwarded to the designers and the project supervisor, and the data, plans, and related safety measures are dealt with

in cooperation before the construction work begins, and even during the construction work when necessary.

- (3) If the client does not possess the expertise needed for drawing up the written documents referred to in section 5 and for following up their implementation, he shall use an external expert. In that case, the client shall ensure that the expert possesses enough expertise and other prerequisites to carry out the task in an appropriate manner.
- (4) The client shall ensure that the project supervisor has laid down the plans referred to in section 7 concerning safety and health at the construction work, and the plans for the use of the site area referred to in section 8.
- (5) Section 52 a of the Occupational Safety and Health Act includes provisions on the responsibility of the client to ensure that each person working on a shared construction site wears a pictorial identification.

Section 6

Prior notice to the occupational safety and health authority

- (1) The project supervisor shall give the competent occupational safety and health authority a prior notice on a construction site planned to exist longer than one month and where, self-employed workers included, at least ten workers carry out work.
- (2) The notice shall be put clearly on display at the construction site and be kept up to date, where necessary.

Section 7

Safety design of the construction work

- (1) The project supervisor shall present to the client the plans referred to in this section concerning occupational safety in the construction work.
- (2) Before initiating the construction work, the project supervisor shall in writing draw up the occupational safety plans according to which the various tasks and work phases shall be carried out and scheduled in such a way that no danger arises from the work to those working on the site or other persons in the zone affected by the work. Therefore the project supervisor shall systematically enough analyse and identify such general hazards and risk factors of the construction work that depend on work tasks, work conditions and work environment, also taking account of the data in the client's safety document. Hazards and risk factors shall be eliminated by appropriate means or, when it is not possible to eliminate them, their significance shall be evaluated with regard to the health and safety of those working at the site and other persons in the zone affected by the work.
- (3) In connection with the design, the project supervisor shall also take account of safety measures for work that causes special safety and health risks, referred to in Annex 2.

- (4) In addition to the provisions of subsection 2 and 3 above, the design shall also pay special attention to at least the following matters:
 - 1) arrangements at the construction site, and maintaining good order in the workplaces and in material handling during the various construction phases;
 - 2) blasting, quarrying and excavation work;
 - 3) carrying capacity of the ground and support of excavations;
 - 4) electrification and lighting during construction work;
 - 5) traffic and means of access at the construction site, and public traffic;
 - 6) work methods;
 - 7) use of machinery and equipment;
 - 8) lifting work and transfers;
 - 9) protection against falls from heights;
 - 10) work on work platforms and scaffolds;
 - 11) assembly of prefabricated elements, formwork, and other large structures;
 - 12) demolition work;
 - 13) factual timing and duration or the various tasks and work phases, and their coordination to make them fit together when the construction work proceeds;
 - 14) coordination of the various tasks and work phases on the construction site to make them fit together, or to fit to any other industrial activity, work activity and public traffic going on in the vicinity of the construction site;
 - 15) piping and electric cables causing risks;
 - 16) where and when personal protective equipment shall be used; and
 - 17) action in connection with injuries and accidents.
- (5) The plans shall be drawn up in writing. They shall be revised if circumstances change, and they shall even otherwise be kept up to date.

Section 8

Design of the use of the construction site area

(1) Before initiating the construction work, the project supervisor shall plan how the area of the construction site is going to be used. In that connection the project supervisor shall, systematically and adequately enough analyse and identify the hazards and risk factors relating to the organisation, practical arrangements and use of the construction site, and eliminate them with appropriate measures. If the

hazards or risk factors cannot be eliminated, their consequences to the safety and health of those working on the construction site or other persons in the zone affected by the work shall be assessed.

- (2) At least the following matters shall be taken into account when planning the use of the construction site area:
 - 1) number and location of office facilities, personnel rooms and storages;
 - 2) placement of machinery and equipment;
 - 3) placement of excavated earth and filling earth;
 - 4) placement of areas for loading, unloading and storing construction materials and substances;
 - 5) traffic in the construction site area, and connecting points between internal and public traffic;
 - 6) means of access, ramps and transport routes, and their maintenance;
 - 7) order and cleanliness on the construction site;
 - 8) collecting, storing, removing and disposal of waste; and
 - 9) fire fighting.
- (3) The matters mentioned above shall be taken into account in such a way that any risks of accident, health hazards and risks of fire are minimised on the construction site
- (4) Central parts of the plans for the construction site use shall be presented as a construction site plan, by construction stages when necessary. The plans shall be checked if circumstances change and they shall in any case be kept up to date.

Chapter 3 Construction stage

Section 9 Management of construction work

- (1) The project supervisor shall see to the general management of the construction site regarding to safety and health, arrangements for cooperation and dissemination of information between the parties, coordination of functions, and general order and tidiness of the construction site.
- (2) The person obliged in subsection 1 above shall appoint for the construction site a competent responsible person to manage the tasks defined in subsection 1. When necessary, a substitute for the responsible person shall also be appointed. Every employer shall correspondingly appoint a competent responsible person for the management and supervision of the work carried out for the employer.

Section 10 Execution of construction work

- (1) The project supervisor shall fulfil the following duties:
 - 1) take and supervise the measures resulting from the planning referred to in sections 7 and 8;
 - 2) update the plans referred to in sections 7 and 8 on the basis of information from the employers and self-employed persons on the shared construction site;
 - take care of work division and cooperation between the employers and selfemployed persons in connection with preventing hazards that could jeopardise the safety or health of workers on the shared construction site and informing of any potential hazards there;
 - 4) when necessary, inform the client of any changes in the work, work phases or circumstances, if the work cannot be carried out in accordance with the plans required by the client; and
 - 5) take account of the prevention of hazards and risk factors when implementing technical plans or arrangement plans relating to work or work phases to be carried out simultaneously or in succession, and plans on the scheduling, duration and way of implementation of the work.
- (2) The employers and self-employed persons shall obey the safety instructions given by the project supervisor for the shared construction site. The project supervisor, employers and self-employed persons shall, each for their own part and in cooperation, take care of the information and communication on matters affecting the safety on the shared construction site.
- (3) The project supervisor shall by necessary means ensure that it knows which workers and self-employed persons are working at the construction site, and that any information needed for orientation purposes is available. The employers shall supply to the project supervisor any necessary information concerning the work of their employees on the construction site, and the self-employed persons shall supply the corresponding information for their own part.
- (4) The employers shall, in accordance with the project supervisor's instructions, supply to the project supervisor any necessary information on inspections referred to in sections 11-15 below.

Chapter 4 On-site inspections

Section 11 § Safety of machinery and equipment

The structure and condition of machines, cranes and other lifting equipment, lifting accessories, scaffolds, prefabricated elements, movable formwork, temporary supports, personal protective equipment and other equipment shall be checked at the construction site to find out whether they are appropriate for the purpose of their use and compliant with the requirements.

Section 12 Initial inspection

- (1) The structure of work platforms, protective platforms and the means of access leading to the platforms shall be checked before any scaffolds are taken into use on the construction site. In this connection, special attention shall be paid to support and protective structures.
- (2) The initial inspection shall be renewed if the scaffolds have been exposed to hard wind, heavy rain or other special stress, or if they have not been used for a long time considering the circumstances.
- (3) The scaffolds may not be taken into use until their parts to be taken into use are ready and they have undergone an initial inspection.
- (4) In addition to the provisions of Government Decision concerning the acquisition, safe use and inspection of machinery used at work and other work equipment (856/1998), the lifting equipment and accessories shall be inspected at the workplace before they are taken into use.

Section 13 Follow-up of safety

- (1) The following shall be checked on the construction site from time to time in connection with periodic inspections, at least once a week when possible: general order of the construction site and workstations, protection against falls from height, lighting, electrification during construction work, cranes, equipment for lifting persons as well as other lifting equipment, lifting accessories, construction saws, scaffolds, means of access, and prevention of collapse of ground or excavations. In connection with the checks, attention shall also be paid to the right timing and coordination of the measures referred to in section 10.
- (2) Instead of periodic checks referred to in subsection 1, safety can be followed-up by some other appropriate means accepted by the occupational safety and health authority carrying out enforcement.
- (3) The user of a crane or other lifting equipment shall daily or whenever necessary before the work begins test the operation of the equipment, and especially during cold and rainy periods test the brakes and warning equipment to ensure that they function well. When mobile cranes or loading cranes are used, it is especially important to ensure that the ground carries the crane well enough at the location of the crane.

Section 14

Participants of workplace inspections, and inspection reports

(1) The responsible person referred to in section 9 above or the person appointed by the responsible person shall carry out the inspections referred to in sections 11 -

13, and a representative elected by the workers of the construction site among themselves shall be given the opportunity to participate in the inspection. When a crane is going to be inspected, its user shall participate.

- (2) Initial inspections as referred to in section 12 and concerning tower cranes, building hoists used for transporting persons or corresponding lifting equipment shall be carried out under the direction and control of a person familiar with the structure and use of the lifting equipment and educated with at least a technician's degree or corresponding education.
- (3) The results of inspections referred to in subsections 1 and 2 shall be recorded in a report or some other record. The record shall include data on the participants, inspected objects, potential remarks, and the dates when the required corrections were made.

Section 15

Correction of deficiencies

Deficiencies endangering the occupational safety, and noticed during inspections referred to in sections 11 - 13, shall be corrected immediately and always before the machine, equipment or tool is taken into use.

Chapter 5

General safety provisions for construction sites

Section 16

Arrangements for internal traffic and areas for unloading, loading and storage on the construction site

- (1) The plan for the construction site area referred to in section 8 shall be taken into account when carrying out traffic arrangements and organising roads, means of access and other traffic areas.
- (2) Roads and areas for unloading, loading and storage shall be constructed to withstand the loads caused by traffic and cranes. The roads shall be arranged in such a way that they do not unnecessarily cross the means of access on the construction site. Traffic signs shall be used to inform of any traffic restrictions.
- (3) The areas for unloading, loading and storing construction material shall be placed in such a way that prefabricated elements, formwork and construction material will not be moved over workers.
- (4) When necessary, separate means of access for pedestrians shall be arranged in the immediate vicinity of vehicle traffic roads.
- (5) When arranging roads for pedestrians and for transport of goods, the number of users and nature of activity shall be taken into account. Vehicle traffic roads shall be arranged in such a way that the visibility is good enough.
- (6) When carrying out work among common traffic, like in street or road areas, the work area shall be made easily noticeable e.g. with the help of traffic guidance, traffic signs, safety equipment and lighting.

Section 16 a Lighting

- (1) The construction site and especially traffic routes shall be provided with enough general and special lighting. High and sudden light contrasts and glare shall be avoided. Light fittings shall be installed in such a way that they do not endanger workers' safety.
- (2) Sufficient auxiliary lighting shall be provided in areas where workers are especially exposed to danger if the general lighting fails.
- (3) Notwithstanding subsection 1, a work machine's lighting device or a portable lighting device carried by the worker may be used in such earthwork, hydraulic engineering and other corresponding work where it not reasonable to require other lighting arrangements, e.g. in tunnel excavating.

Section 17

Fire and explosion hazard

- (1) The construction site and construction work shall be arranged in such a way that the risk of fire is as minor as possible. Waste from work processes and other construction utilities and materials that are not needed for the work, as well as flammable substances, shall be removed.
- (2) The construction site must be provided with appropriate fire fighting and fire alarm equipment and safety signs. When necessary, the construction site shall be provided with equipment for detecting fire. The first-hand extinguishing equipment shall be easy to take into use. The responsible person referred to in section 9 shall ensure that there are enough persons familiar with first-hand extinguishing on the construction site.
- (3) When assessing the need for fire fighting and alarm equipment and equipment for detecting fire, or considering whether the equipment on the site is sufficient, the hazards shall be analysed and assessed as referred to in section 10 of the Occupational Safety and Health Act.
- (4) When handling and storing substances that can form explosive gas or dust, it shall be particularly ensured that sufficient safety measures have been taken, e.g. ventilation and prohibition of fire, or in some other way continuously ensured that the risk of fire and explosion is as minor as possible.
- (5) Procedures shall be taken into use to warn the workers about fire in such a way that the alarm will be effectively noticed in danger areas and it is possible to simultaneously understand to whom the alarm is addressed.
- (6) The workers shall be given necessary protection instructions for handling of fire, work causing risk of fire, handling and storing inflammable or explosive substances, emergency alarm, alarming fire and rescue authorities, closing fire doors, quick exit when necessary, and other important measures depending on the circumstances in case of fire or during fire.

Section 18 Escape and rescue routes

- (1) In danger situations the workers shall be able to leave all workstations quickly and as safely as possible. The escape and rescues routes shall be kept clear from obstacles, and they shall lead to a safe area as directly as possible. The doors to exits and on escape routes shall be easy to open in emergency situations.
- (2) The exits and escape routes to be used in emergency situations shall be marked with appropriate signs when necessary.

Section 19 Physical strain

Such work methods and work equipment shall be chosen for the work that their use does not cause too much strain, especially when they are used for a long time or repeatedly. Work equipment shall be used in such a way that risks and hazards caused by lifting and stressful work postures can be prevented and reduced in advance. Any heavy horizontal moving operations shall be carried out, when possible, with the help of suitable transport machinery. Lifting equipment and accessories shall be used for moving loads vertically.

Section 20 Work-hygienic hazards

- (1) Such machinery and equipment shall be used in construction work that cause as little risks and hazards as possible e.g. because of noise or other physical risk factors. The workers shall be protected against chemical and physical risk factors and hazards primarily through measures focusing on machinery, work equipment, work methods and work environment.
- (2) Before any work will be initiated in a well, tunnel, container or similar space, it shall be ensured that the air contains enough oxygen and the content of impurities in respiratory air does not rise to a level that can harm the worker. The contents of oxygen and impurities in air must be measured when necessary. The workplace shall be ventilated when necessary.
- (3) Local exhaust equipment shall be used for preventing risks caused by chemical factors, and the equipment shall be effective enough. When necessary, the workplace shall be divided into closed sections and a ventilation system and equipment shall be used to create a difference in air pressure levels. If mechanical local exhaust equipment is used, they shall be kept in good working condition. The equipment shall function in a way that does not cause any risk or hazard to the workers. When necessary regarding the safety and health of the workers, the local exhaust equipment shall be fitted with a control system that informs of any malfunction.

Section 21

Need for personal protective equipment in construction work

- In addition to what is laid down in Government Decision on the selection and use of personal protective equipment (1407/1993), the provisions of subsections 2 5 shall be taken into account.
- (2) Persons shall use safety helmets on construction sites when work is carried out in circumstances where knocks or blows to the head can happen. When necessary, a hood shall be worn under the helmet.
- (3) When using a harness-type safety belt with rope, a safety rope with automatic length regulator shall be used if the rope length has to be adjusted during the work.
- (4) Footwear with firm sole shall usually be used on construction sites. Safety insoles and safety footwear shall also be used when necessary. When carrying out floor work or similar tasks, knee protectors shall be used.
- (5) When carrying out work under ground or elsewhere in dark or dusky places where vehicles or work machinery operate, reflectors, reflecting vests or similar accessories shall be used with clothing. When carrying out work in road or street areas or other places used by traffic, protective clothing or accessories with clearly visible colours shall be used. Reflective materials shall be used when such work is carried out in darkness or dusk. The reflectors shall be clearly visible and they shall primarily form a part of the work clothing or be attached to the clothing. When necessary, the helmet shall be marked with fluorescent colour or in some other way that makes it visible to all directions.

Section 22 First aid and rescue apparatus

- (1) Necessary first aid equipment and a necessary number or persons familiar with giving first aid shall be in place where construction work is carried out. The space meant for giving first aid shall be easily accessible with stretchers.
- (2) The sufficiency and properties of the first aid equipment, as well as the place for storing them, shall be arranged in case of accident or illness, and their suitability for the purpose shall be followed-up. The storages shall be marked in accordance with the provisions of Government Decision on safety markings at workplaces and their use (976/1994).
- (3) The workplace shall be equipped with necessary alarm, life-saving and rescue equipment and accessories when the circumstances so require. Rescue equipment shall always be available in a suitable place on workplaces where there is danger to life or health because of the risk of falling into water. The workers shall be given necessary guidance for the use of such equipment in case of drowning or other risk situations.
- (4) If the work includes special risks of accident, the worker shall, in order to guarantee quick first aid, have eye or hearing contact with another person either continuously or regularly with short, repeated intervals. The contacts can also be arranged using communication equipment.

(5) The requirements set by the occupational health care personnel in their workplace investigation shall be taken into consideration when organising the first aid standby.

Section 23

Personnel rooms on construction sites

- (1) Where necessary regarding the number of workers or the nature and continuity of the work, the employers shall, each for their part, ensure that the supply of the following is large enough on the construction site or in its immediate vicinity:
 - 1) good drinking water and clean and suitable drinking equipment;
 - 2) good and warm enough washing water and good washing equipment, and where special circumstances require, a necessary amount of washing and drying accessories;
 - room space equipped with appropriate equipment for changing, storing and drying clothes; separate spaces shall be provided for men and women for changing clothes;
 - 4) separate room space reserved and furnished especially for having meals, and when there is no freshly cooked food available at the workplace, equipment for storing and warming up the food brought in;
 - 5) appropriately equipped and cleaned toilets.
- (2) Ventilation shall be effective enough in rooms reserved for having meals and storing clothes, and the temperature there shall be suitable, at least +18 degrees Celsius. The rooms shall be cleaned daily.

Section 23 a Residential facilities

Separate provisions are issued on health requirements concerning residential facilities that employers may reserve to be used by their employees in the workplace or in its vicinity.

Chapter 6 Work platforms, means of access and scaffolds

Section 24 Work platforms

- (1) The work platforms chosen for the construction work shall be as appropriate and suitable as possible to ensure and maintain safety in the work and the circumstances concerned.
- (2) The dimensioning of the work platforms shall correspond to the nature of the work and the loads on the platforms, and make it possible to work and move safely.

- (3) The work platform shall be wide enough for the planned work. When considering the width, even the location, properties and transport of goods shall be taken into account.
- (4) When working on platforms and scaffolds, necessary safety measures shall be carried out to secure that weather conditions do not compromise the safety of workers. When analysing and assessing the weather hazards related to the work, as referred to in section 10 of the Occupational Safety and Health Act, special attention shall be paid to high wind speed, snow or rain making the work difficult, as well as icing of the platform.

Section 25 Means of access

- (1) Arrangements shall be made to establish such means of access to all places of work that are safe, appropriate for the purpose of use, easy to use, suitable and, when necessary, clearly marked. The means of access, floors, stairs, passages and similar structures shall be kept in such a condition that the risk of slipping, tripping or falling will remain as minor as possible.
- (2) Safe access to places of work shall be arranged, taking account of, among others, the frequency of accesses, height of the workplace, and duration of work.
- (3) Stairs and means of access shall be made at least 0,6 meters wide. The width of transport bridges shall be at least 1,0 meter. Where ladders are used, the use shall be appropriately planned. Leaning ladders may not be used as work platform. Leaning ladders may only be used as temporary means of access, for fastening and loosening lifting accessories, and for other similar short-termed one-time work. The length of the leaning ladders shall not exceed 6 meters.
- (4) Steel structures, bolts and any other projecting objects in the structures causing risks of accident shall be cut off, covered by a guard, or bended.
- (5) Transparent doors, walls and similar structures shall be labelled with an appropriate marking that improves their visibility.

Section 25 a Work scaffolds

- (1) Necessary work and guard scaffolds shall be arranged for the workers for all such work that cannot otherwise be carried out safely.
- (2) Scaffolds shall be planned and erected in such a way that they remain strong, rigid and stable enough in all stages of erection and dismantling, and during the use of the scaffold. The foundation of a scaffold must be solid enough to resist any harmful sinking of dislocation. Scaffolds must be equipped with appropriate and safe work platforms and means of access.
- (3) The stability of a scaffold shall be proved to be good enough on the basis of total or partial solutions included in standards, the instructions for use of the scaffold, or other similar documents. If such total or partial solutions are not used, an

expert's stability calculations and drawings for the scaffolds and means of access shall be available. The scaffolds and relating equipment shall be installed and used according to the plans.

(4) Scaffold users shall be informed of the maximum load of the scaffolds in an appropriate way, for example by using a scaffold card or maximum load sign.

25 b

Erection, dismantling and altering of scaffolds

- (1) Scaffolds may be erected, dismantled and altered only by such worker who is working under the leadership of a competent person and who has received the special instructions and guidance relating to the planned tasks and special risks. The instructions and guidance shall include information at least on the following:
 - 1) how to erect, dismantle and alter the scaffolds according to the plan;
 - 2) safety during the erection, dismantling and altering of the scaffold
 - 3) measures to prevent the risk of falls of persons or objects;
 - 4) safety measures relating to weather conditions weakening the safety of the scaffolds;
 - 5) maximum loads;
 - 6) other potential risks relating to the erection, dismantling or alteration.
- (2) The person leading the work and the workers concerned shall have the manufacturer's or importer's instructions and, when necessary, a structure plan and plan of the use. Provisions on those documents are included in the Decision on the Use of Guard Structures in Construction Work 156/1998, issued by the Ministry of Social Affairs and Health.
- (3) When erecting, dismantling and altering a scaffold or a part of it, it shall be labelled with prohibition or warning signs, and appropriate barriers shall be used to prevent access to the dangerous zone.

25 c

Guard structures and equipment preventing falls

- (1) The protection effect of guard structures and equipment preventing falls, e.g. guard rails, shall be as uniform as possible.
- (2) When the work requires that a guard structure or equipment providing general protection against falls will be removed, other protective measures shall be used instead. The work must not be carried out before these protective measures have been put into use. The guard structure or equipment providing general protection against falls shall be replaced immediately after the work in question has been finished or interrupted.

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26 Protection against falls

- (1) When carrying out work at height, the work platforms and equipment for lifting persons shall be fitted with protection against falls, or safety nets or other protective structures attached to the main structures shall be used. If the nature of the work does not allow such equipment or structures to be used, such safety belts with ropes shall be used that are appropriate for the purpose. The ropes shall be attached safely.
- (2) There shall be guard rails or other protective structures on the free sides of work platforms and means of access if there is a risk of falls form a height of 3 meters or more, or even otherwise if there is a special risk of accident or drowning. The work platforms of scaffolds must be fitted with rails when there is a risk of falls from a height of 2 meters of more. When carrying out casting work over the upper edge of a movable formwork at a height of more than 2 meters, a work platform protected with guardrails shall be provided for the work. Stairs and ladders shall be equipped with guardrails throughout their whole length. Stairs where no guardrail is needed shall be equipped with a separate handrail, where necessary.
- (3) Guardrails for preventing falls shall include handrails, intermediate guardrails, and toe boards when necessary. Any guardrails above means of access and ramps shall be fitted with toe boards. The rails of scaffolds shall be fitted with toe boards. The height of the rail shall be at least 1 meter. The rails shall be placed in such a way that the vertical free space under any rail does not exceed 0,5 meters. The rails may also be replaced by other protective structures providing the same safety level, like appropriate boards and nets.
- (4) Separate provisions are issued on the requirements set for the strength of guard rails and other protective structures preventing falls.
- (5) All kinds of gaps occurring during the construction work, where persons or goods can fall into, shall be guardrailed and toeboarded, or covered with lids. The protective lids shall be marked clearly for example by painting, so that they are clearly distinguished from their surroundings. The lids shall be prevented from moving inadvertently.

Section 27 Protection against falling objects

- (1) Where it is possible that construction material or waste can fall onto places where work is carried out or on access routes, appropriate guards, fences, shelters or other safety equipment shall be arranged for protection.
- (2) The shelters to be placed above passage manholes shall usually be placed at the height of the upper edge of the hole, and they shall reach out at least 1,5 meters from the structure and 0,5 meters to the both sides of the manhole. When necessary, a protective plate shall be installed on the outer edge of the shelter.
- (3) If the safety equipment is not in place, access to danger zone shall be prohibited through a reliable way, e.g. posting a guard.

Section 28 Special provisions on work with the help of rope access and positioning techniques

- (1) The platforms and means of access used in construction work shall be fixed work platforms, scaffolds, equipment for lifting persons, mechanically raised work platforms, or other similar work platforms. Rope access and positioning techniques must not be used in ordinary construction work. Work with rope access and positioning techniques is allowed only in exceptional circumstances, where the use of the above mentioned safer work platforms and means of access is not possible, and where the analysis and evaluation of the risks of the work proves that the work can be carried out safely. The evaluation of risks shall be recorded in writing and it shall be presented to the project supervisor.
- (2) A written plan shall be drawn up for moving and working with the help of ropes, taking account of, as a minimum, the following requirements that shall also be followed when work is carried out:
 - 1) The system shall include at least two ropes fastened separately. One of the ropes is used for ascending, descending and as support (*work rope*) and the other is used as safeguard (*safeguard rope*).
 - 2) The workers shall use appropriate safe harnesses, and their harnesses shall be fastened to the safeguard rope.
 - 3) The work rope shall have safeguarding mechanisms for ascending and descending, and a self-locking mechanism to prevent the worker from falling down even in a situation where he or she looses control over his/her movements. The safeguard rope shall be equipped with a mobile device to prevent falls, and the device shall move along with the worker.
 - 4) The work equipment and other accessories used by the worker shall be fastened to his/her safe harness, or they shall be fastened in some other suitable way.
 - 5) The work shall be followed-up in order to make sure that it is carried out in accordance with the plans. The work shall be supervised in an appropriate manner so that the worker can be immediately saved in an emergency situation.
 - 6) The worker shall receive all appropriate special guidance and instructions that is necessary for the work. The guidance and instructions shall especially include information on rescue procedures. It shall also be ensured that the workers can carry out the work in accordance with the instructions and written plans.
 - 7) Communication between the persons involved shall be arranged in an appropriate way.
- (3) The work may only be carried out by a competent worker whose personal qualifications are suitable for the work, or by another worker under the immediate supervision of such competent worker.

(4) The employer shall use suitable ways to control the condition of the work equipment used for the work.

Chapter 7 Machinery and lifting equipment

Section 29 Safety and placement

- (1) Machinery and other technical equipment used in construction work shall be suitable for the purpose, solid enough and safeguarded in such a way that they do not cause any risk to their user or other persons at the construction site.
- (2) When considering the placement of a machine or other equipment at the construction site, its safe use and the space necessary for the use shall be taken into account.
- (3) Lifting equipment shall be placed in a manner that enables the user, when possible, continuously supervise the movements of the load. The lifting equipment shall be founded and anchored or supported in such a way that they do not move and cause danger when used. When considering the placement of a crane, the carrying capacity of the ground under the crane shall be analysed, and, when necessary, measures shall be taken to ensure that the stability of the crane will not be endangered.
- (4) On road and street areas and other traffic areas the machinery has to be distinguished among other traffic. When necessary, sufficient safety zones shall be established between the work equipment and traffic.
- (5) When there is special reason to beware of a machine or equipment used in construction work, the machine or equipment and its danger zone shall be separated from its surroundings by using a suitable enclosure or other means. If this is not possible, the machine or equipment shall be equipped with visible, durable and appropriate warning labelling in suitable places.

Section 30 Loads on lifting equipment and lifting accessories

- (1) A lifting equipment and its accessories, like strops, bars, tongs and similar shall have an identification plate showing the identification data of the item, as well as clear markings showing the maximum load, and any other markings required for safe lifting. If a lifting equipment or accessory lacks a marking showing its maximum load it must not be used without a reliable clarification.
- (2) A lifting equipment and accessory must not be overloaded.

Section 31 Lifting

- A separate plan for difficult lifting operations shall be drawn up when necessary. A plan shall always be drawn up when more than one crane is used to lift the same load.
- (2) If the user of the crane or other lifting equipment cannot continuously control how the load moves, a signaller shall assist the user.
- (3) The impact of weather conditions on the safety of lifting work shall be examined before the work is begun.
- (4) Loads shall be made with special care to prevent the load from dropping or leaking.

Section 32 Lifting of persons

- (1) A machine or equipment designed and manufactured for lifting goods must not be used for lifting persons. Persons may only be lifted by using a crane, building hoist, forklift, reach truck or other machine or equipment especially planned and manufactured for that purpose. A crane or forklift planned and manufactured for lifting goods may, however, exceptionally be used for temporary lifts of persons in compliance with the special provisions issued for lifting persons with cranes and forklifts. Building hoists meant for lifting goods shall be equipped with a prohibition sign against lifting persons.
- (2) Machinery for lifting persons shall be suitable for the intended lifting work. Before using the machinery for lifting persons, it shall be ensured that the machine structure is in order, the carrying capacity of the foundation or the ground of the work station remains sufficient, and that the work area of the machinery for lifting persons is safe.
- (3) Instructions for the use of the machinery for lifting persons shall be available at the work site. It shall be ensured that the worker can use the machinery in accordance with its instructions of use. Special attention shall be paid to securing the support structures, to the operation of control and safety devices, and to any restrictions of work movements. The operation of control and safety devices shall be tested before the machinery for lifting persons is put into use.

Chapter 8 Electrical equipment

Section 33 Electrical work during construction work

- (1) The Act on Electrical Safety (410/1996) and statutes laid down pursuant to it contain provisions on the safety of electrical work and carrying out such work.
- (2) Electrical equipment like cables, distribution boards and light fittings shall be placed in such a way that they do not easily break or cause any risk of stumbling or risk of electric shock.

- (3) Cables on driveways shall either be suitably protected against stress caused by vehicles, or hung high enough.
- (4) If there are such uninsulated wires on the construction site or in its vicinity that cannot be moved for the time or work or made dead, protective structures or other means shall be used to prevent any indirect or direct risk of electric accident. It shall also be ensured that lifting machinery and similar equipment maintain their safe distances when they move in the area.

Section 34 Conditions for the use of electrical equipment

When electrical equipment is handled under very dangerous operating conditions like in wet work spaces, inside narrow metal tanks, and in similar places, special safety measures shall be taken in compliance with the safety regulations for electric work. Such measures can concern the equipment to be used, any necessary protective equipment, or the maximum voltage allowed.

Chapter 9 Additional provisions on specific work phases

A. Earthwork and hydraulic engineering

Section 35

Planning obligation and preliminary information

- (1) Before the excavating work is begun, the quality of earth shall be analysed, and the locations of existing cables, wires and pipelines shall be ensured.
- (2) When it is difficult to estimate the risk of collapse depending on earth quality, or the stability of earth masses, the excavation work must not be started if there is no plan drawn up by a competent person for support measures or other protective measures.
- (3) The construction, installation, transformation or dismantling of a cofferdam or caisson must take place only under the direct supervision of a competent person. All cofferdams and caissons must be solid enough and appropriately equipped so that workers can gain shelter in the event of an irruption of water and materials.

Section 36

Excavation work and support of excavation

- (1) The excavation work shall be carried out safely, taking account of the quality of earth, depth of the excavation, inclination of slopes, loads on the slopes, and the risk factors caused by water and vibration of traffic.
- (2) When a collapse can cause an accident, the wall of the excavation shall be made inclined, stepped or supported.
- (3) When necessary, special measures shall be taken to avoid the risk of accident caused by collapse because of rain, dryness or melting ground frost. The same has to be done when excavating loose earth or a narrow excavation deeper than

2,0 meters, or when work causing vibration is carried out in connection with or in the vicinity of the excavation, or when heavy traffic effects the excavation. Similarly, sufficient support measures to prevent any collapse shall be taken in advance in cases where excavation work will be carried out under or beside a building or other structure.

Section 37 Danger zone of earth-moving machinery

- (1) In the working zone of earth-moving machinery it shall be ensured that there are no persons in dangerous places. Danger caused by backing machines shall be prevented in a suitable way. When necessary, backing alarms, suitable prohibition signs, enclosures and other protective devices shall be used, or the use of the machine shall be interrupted in the danger zone. When the driver leaves the driver's cabin, he or she shall ensure that the machine or its equipment do not cause any risk of accident.
- (2) Vehicles, earth-moving machinery, and lifting and other equipment shall be placed at a safe distance from the edge of the excavation, taking account of the quality of earth and the depth of the excavation. All traffic shall be directed far enough from the edge of the excavation through suitable guiding bars and barriers.
- (3) When using a digging machine to install sewer pipes or other elements in connection with excavation work, special care shall be taken to ensure that there are no persons in dangerous places and the machine is equipped with a reliable lifting hook. The maximum load allowed in lifting work shall be defined in a reliable way.
- (4) The drivers of earth-moving machinery and other employees shall receive special guidance and training concerning risk factors caused by earth-moving machinery and the measures to prevent those risks.

B Construction with prefabricated elements and formwork

Section 38

Construction with prefabricated elements

Government Decree on Occupational Safety in Construction with Prefabricated Elements (578/2003) lays down provisions concerning the safety of element construction.

Section 39 Formworking

(1) The stages of formworking shall be planned when using formwork whose weight or size require the use of lifting accessories. The plan shall present the safety measures at least for handling, storing, lifting and supporting the formwork, keeping them stable during the work, and for preventing the risk of falls. The weights and lifting points of the formwork shall be clearly marked. The instructions of the manufacturer or importer shall be taken into account in the plan. (2) When installing tall pieces of formwork and support scaffolds, protection against falls shall be planned, necessary measures shall be taken for the protection against falls, and safe ramps and means of access shall be arranged.

Section 40

Professional skill, training and guidance of the employees for formworking

- (1) Before the work begins, the employer shall see to that the installer of formwork possesses adequate professional skills for correct handling of formwork and for carrying out the various stages of the installation work.
- (2) When necessary, the content of regulations and instructions concerning occupational safety shall be explained to the worker, and also other information and guidance required by the work and work conditions shall be given to him or her. Before installing any new types of formwork, the work methods, work process, risks related to the work and measures to prevent the risks shall be explained to the worker.

Section 41 Handling, lifting and installing formwork

- (1) The solidity, supports and other features of the formwork to be transferred shall be such that the formwork does not cause any risk during transport, unloading, storage, lifting and installation. Any uneven distribution of load as well as the lifting method to be used shall be taken into account when lifting formwork.
- (2) When storing, lifting and installing formwork, also the plans mentioned in sections 7 and 8 above shall be taken into account. When storing formwork, special attention shall be paid to their stability. Wind pressure, earth softening or moving when frozen earth or ice melts or when it rains, earth getting dryer, horizontal stability of the base, and traffic, affects the stability. When loading or unloading, special attention shall be paid to the suitability of the loading or unloading place, occupational safety of the storing base and storing scaffolds, and the right order of the work phases.
- (3) Manufacturer's or importer's instructions shall be followed when lifting and installing large and heavy formwork system equipment and their support scaffolds.

Section 42 Supporting of formwork

- (1) Formwork shall be supported in such a way that they do not fall over or drop because of movable loads or wind pressure. Their supports shall be strong and steady enough.
- (2) When using a support foot for supporting wall formwork, the support shall be strong enough, taking account of the weight of the formwork, wind pressure, and other forces that can make the formwork fall. In addition to support foots, the formwork shall be anchored well enough when necessary.

C. Demolition work

Section 43 Planning of demolition work and demolition methods

- (1) Demolition work shall be planned to be safe. When demolishing large, loadbearing structures or otherwise dangerous targets, the work shall be carried out under the direct supervision of a competent person.
- (2) The demolition site shall be isolated from the surrounding area where necessary.
- (3) Before the beginning of the demolition work it shall be ensured that all electric wires, gas and other pipes, or pipelines and tanks that can cause an accident in connection with the demolition work are disconnected, shut down or emptied in a reliable way, and rinsed when necessary.
- (4) In connection with demolition work, special measures shall be taken to protect workers against falls, and to avoid the risks caused by objects falling over or dropping. The properties, strength and condition of structures and structural elements shall be analysed so as to enable the work to be carried out safely and without causing any harm to the worker's health. The work shall be carried out in such an order that falls of structures are avoided. Load-bearing or strong structures must not be demolished before the structures are supported or tied well enough. During the demolition work, intermediate floors or other structures must not be loaded to the extent that safety will be endangered.
- (5) Any transfers and storage of goods and structural elements shall be arranged in such a way that the risks caused by their handling remain as minor as possible.
- (6) Separate provisions are issued on demolition of structures containing dangerous substances like asbestos.

Section 44 Demolition waste

- Transfer of structure parts that are loosened in connection with the demolition work, like tiles, pieces of concrete and similar, has to be carried out safely.
 Dusty materials shall be dropped down through a tube that is dense enough and that leads to a protected space or vehicle, or carried away in bags or containers.
- (2) Dust shall be removed through ventilation, local exhausts or other appropriate measures. When necessary, dust shall be prevented from spreading by using protective walls built for the construction work. Dust shall be cleaned up from work premises often enough.

Chapter 10 Miscellaneous provisions

Section 45 (repealed by Decree 426/2004)

Section 46

Further provisions and exemption orders

When necessary, the Ministry of Labour will issue further provisions on the application of this decision. The competent occupational safety and health authority may on special grounds grant exemptions from the provisions laid down in this decision, provided that the purpose of this decision will be met in another way.

Section 47 Entry into force

- (1) This Decision enters into force on 1 October 1994.
- (2) This Decision repeals the Government Decision from 29 April 1969 containing the ordinance for construction work (274/1969) and its amendments. The Decision of the Ministry of Social Affairs and Health (697/1984) issued on 27 September 1984 by virtue of the repealed Decision, however, remains in force until otherwise provided.
- (3) The Decision of EEA No. 7/94 on 21 March 1994. Annex XVIII of the EEAagreement: Council Directive 92/57/EEC.

Annex 1

CONTENT OF THE PRIOR NOTICE REFERRED TO IN SECTION 6 OF GOVERNMENT DECISION ON THE SAFETY OF CONSTRUCTION WORK

- 1. Date
- 2. Precise address of the construction site
- 3. Name and address of the client (clients)
- 4. Type and form of the construction project
- 5. Client / contact person of the client
- 6. Main contractor / contact person of the main contractor
- 7. The responsible person referred to in section 9 of the decision
- 8. The planned first and last day of the work at the construction site.
- 9. The estimated maximum number and average number of personnel at the construction site
- 10. The planned number of employers and self-employed workers on the construction site
- 11. The names and addresses to the chosen employers and self-employed workers.
- 12. Other necessary facts.

Annex 2

WORK REFERRED TO IN SECTION 7 OF GOVERNMENT DECISION ON THE SAFETY OF CONSTRUCTION WORK, CAUSING SPECIAL RISKS TO THE SAFETY OR HEALTH OF WORKERS

1. Such work connected with a risk of being buried under collapsed earth, sinking in earth, or falling from a height, where the risk is especially high because of the nature of the work, work methods used, or because of the circumstances at the workplace or construction site.

- 2. Work where employees are exposed to chemical or biological substances that present an especially high risk to the safety and health of employees, and work requiring regular medical checks.
- 3. Work where such ionising radiation is used that requires marking of determined or monitored areas in compliance with special regulations.
- 4. Work carried out in the vicinity of high-tension cables.
- 5. Work involving a risk of worker's drowning.
- 6. Work in shafts, construction sites under ground, and tunnels.
- 7. Work where diving equipment is used.
- 8. Work carried out in decompression chambers.
- 9. Work where explosives are used.
- 10. Work involving assembly, disassembly or loading of heavy prefabricated elements.
- 11. Demolition work of structures, structural elements or materials.
- 12. Work in road or street areas.