## **Preface**

This guidance is prepared for:

- **Clients** who are instructed to elaborate a plan for Safety and Health on the building site (PSH),
- Consultants/Project supervisors, who are undertaking the practical work of elaborating the PSH and
- Contracting companies (employers), who as main contractors are performing the practical work by creating the PSH and are instructed to asses the need for Safety and Health, when there is no demand for PSH.

The guidance is goes through the obligations, laid down in "Law on the Work Environment" in it's section concerning planning of construction and civil works. The guidance also contains a list of recommended solutions concerning good practise as well.

This guidance is created by "Branchearbejdsmiljørådet for Bygge & Anlæg" (Safety and Health Council for Construction and civil Work sector) together with "FRI", association of consulting engineers, "PAR", association of practising Architects and "Bygherreforeningen i Danmark" association of building clients in Denmark.

The guidance is available on the net in Danish. Address: <a href="https://www.bar-ba.dk">www.bar-ba.dk</a>. Possible up dating caused by changed legislation etc. will be added on this web page with specification of date for updating, correction sheets etc.





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  - Construction site ministerial order

## **1.** Guidance for reading

Starting point for the guidance is the table on page 6.

Here it is specified when a written plan for safety and health has to be produced and who is going to elaborate it.

Throughout this guidance the written plan for safety and health is denominated "PSH"

Also the table indicates when written assessments, concerning safety and health, of the whole- or part of the construction project shall be produced.

The table has different colours, depending on the position of the individual actor. The colours are repeated in the following chapters in the guidance.

Colours for actors and situations are:

Client

Project supervisor/consultant

Trade contracts when there is a demand for PSH

Main contracts when there is a demand for PSH

Turnkey contracts when there is a demand for PSH

Coordinator

Several employers with a max. of 10 employees in all (without demand for PSH)

Assessment when notification of the site is demanded

Assessment of particularly dangerous work (employers)



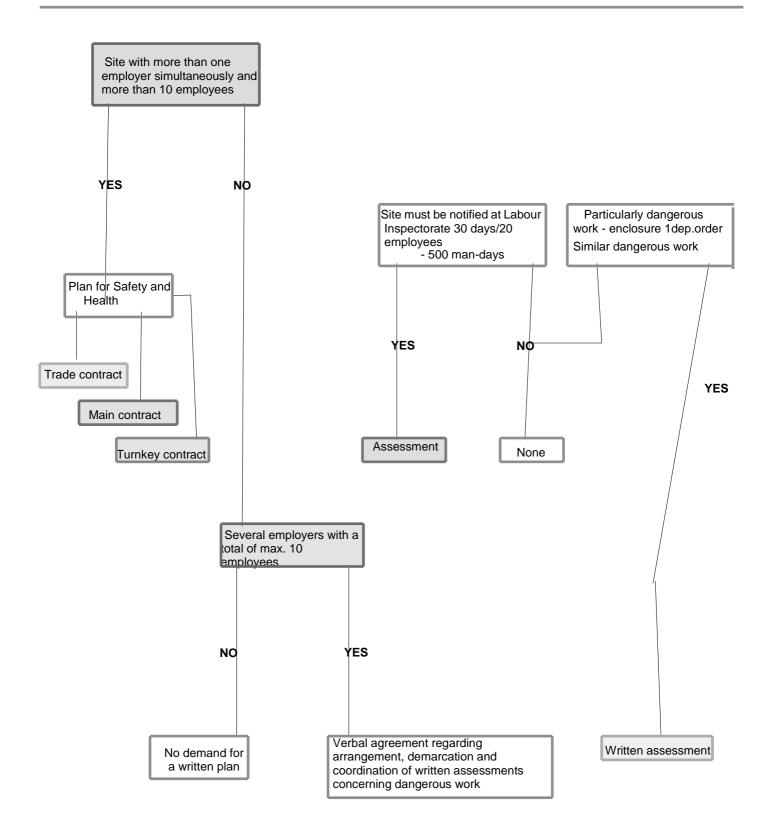
## Which construction sites need a PSH and who is going to elaborate the PSH?

#### A PSH is needed Good advises: It is recommended that the client arranges lf: Who: for preparing and updating a PSH whenever the site has to be notified to the More than one employer is employing The client is responsible Labour Inspectorate only because of the more than 10 employees at the same size. This is most convenient for the client, time. as most of the content of the PSH must be part of the tender material An written assessment is needed Who: The work contains special dangers or if The employer is responsible, or if more requested by the Labour Inspectorate than one employer: under similar circumstances. - The employers in unison. If the client is obliged to make a PSH, there is no obligation to make a written statement.

## 3. PSH – when-whom

Figure 1 DEMAND FOR PSH

### **DEMAND FOR ASSESSMENT**



## **PSH**

- 4.1 The client's obligations
- 4.2 Who shall elaborate the PSH?
- 4.3 Obligations of the project supervisor
- 4.4 Summary of phases regarding PSH elaboration and updating
- 4.5 Elaborating the basis for PSH
- 4.6 Completion of PSH before establishment of building site
- 4.7 Updating of PSH in the construction phase

## The Client's obligations

The client has some general obligations according to Law on the Work Environment

Obligations for the client on a site with more than one employer simultaneously and more than 10 workers:

- Demarcation and coordination in common areas
- Composition and maintenance of PSH.

When the construction has a certain size, the client has to report the site to Labour Inspectorate (see page 21).

### Responsibility cannot be handed over to others

The client's responsibility cannot be handed over to others.

The practical work can be executed in the client's own organisation or by clients consultant, companies or persons, completely or partly.

Even if the client chooses to engage others to execute his work, it is still the responsibility of the client to: Demarcate and coordinate common areas, written planning and reporting of the building site according to the rules in the departmental order.

### Demarcation in common areas\*\*

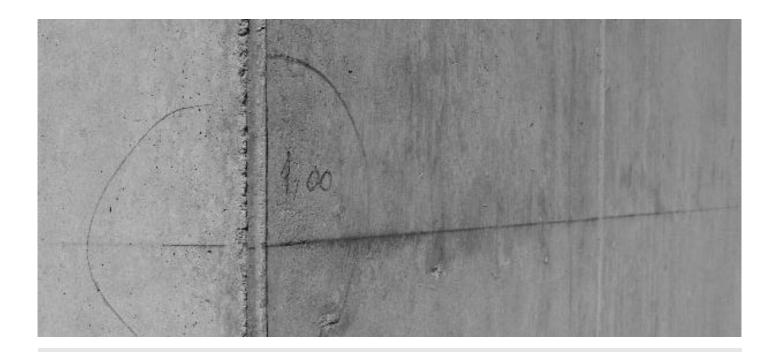
Before start of construction, the client must make agreements with the individual employers specifying who will establish, maintain and remove safety precautions in the common areas.

Demarcation of the safety precautions should be specified in the tender material to allow for expenses to be included in the bids.

Client's agreements for demarcations should contain specific information regarding what, how and when the obligation for the safety precautions are the responsibility of the individual employers. The agreements should also describe how the safety demands can be communicated to the sub-contractors.

This demand is in force even if from beginning only one employer is intended/planned to be on the site. If at any time in the building process is 2 storage areas for materials, garbage areas, working platforms, employers or more than 10 workers are employed at the site, a PSH have to gangways, scaffoldings, shelter town, clearing of snow and gravelling, be designed.

<sup>\*\*</sup> Common areas are considered as e.g. Traffic- and access roads, traffic light, and specific working areas, where several employers are working simultaneous. A checklist for common areas is in the "tool part" of this guidance.



If, during the construction, situations arise which could not be foreseen, the changes in the demarcation should be agreed upon in a safety meeting.

#### **PSH**

Before establishment of the site the client must make sure that a written PSH is elaborated describing arrangement and operation of the site. PSH also comprise a time schedule, which clearly indicates and coordinates the time for the work of each contractor ensuring proper execution of the work regarding Safety and Health. Working outside normal working hours could be an option when undertaking dangerous work or particularly noisy or dusty activities.

In the following chapters this guidance will go through designing and follow up of the PSH.

## Coordination in common areas

The client has to assign a coordinator to coordinate the safety work during the execution. Coordination of the individual employers safety precautions shall take place by the holding of safety meetings and by personal contact on the site.

• The client is obliged to hold safety meetings at least every 2 weeks.

- · The client shall ensure that the coordinator has:
- Expert knowledge within construction and civil works
- including knowledge about actors in the building process,
- practical experience in managing building and civil works
- knowledge regarding Safety and Health precautions and
- has completed the compulsory course for Safety and Health preferably one designed for safety coordinators

### Contribution to proper working conditions

The client shall contribute towards ensuring, that the employer can execute the construction and civil work with respect to the demands for safety and Health.

It is recommended that the client elaborates a policy for work environment, which could contain of e.g.:

- Wishes as to the documentation from the consultant regarding expertise in working environment
- Demand for execution of project scrutinising of Safety and Health precautions in the project both preliminary and during project implementation.
- That a Term Of Reference is made for the individual projects describing the duties of the coordinator during the building period including a description of the mandate the coordinator has in ensuring that agreed security work is carried out.

- that a powerful, engaged and experienced security coordinator is appointed in case of large or complex projects.
- That in case of large or complex projects, the employers should elaborate safety procedures which can be incorporated in PSH.

For further information, see the chapter regarding coordination on page 16.

## **4.2** Who is elaborating PSH?

Even if the client has the responsibility for demarcation, coordination, elaboration and updating up of the PSH, he can appoint other companies/persons, who are capable to do it.

For further information, see chapter 4.1 regarding the client's responsibilities.

Below is an overview showing, who would normally carry out the clients responsibilities considering common contract forms. In this overview is the design of PSH is separated in 3 phases:

- Design of the basis for PSH in the design phase, including the time schedule
- · Completion of PSH before start of building site
- *Updating* of the PSH in the construction phase.

Phase	Basis	Completion	Updating
Contract form			
Trade	schedule and demarcation) by o	COORDINATOR (pointed out	
contract		by client/employed at	by client/employed at consultant)
Main contract	CONSULTANT (incl. time schedule)	MAIN CONTRACTOR (incl. demarcation)	COORDINATOR (pointed out by client/employed by main contractor)
		COORDINATOR (pointed out by client/employed by main contractor)	main contractor)
Turnkey contract TURN KEY CONTRACTOR	_	TURNKEY CONTRACTOR	TURNKEY CONTRACTOR
	CONTRACTOR	COORDINATOR (pointed out by client/employed by turn key contractor)	COORDINATOR (pointed out by client/employed by turn key contractor)

Figure 2

The client may appoint different companies to be in charge of completion as well as updating of PSH.

It is recommended that the client's contracts are specifying who is appointed to following tasks:

- · Elaboration of PSH
- Completion of PSH
- · Updating of PSH

## Obligations of the project supervisor

Whether the client has to elaborate a PSH or not, the project supervisor at all building- and civil work projects, is obliged to ensure:

- 1. That the project can be executed and later maintained, respecting Safety and Health regulations in force at the time of design.
- 2. That the least dangerous substances and materials are used both in the construction and later in the maintenance.
- 3. That the project (the tender material) contains the needed information, which makes it possible to use appropriate technical appliances in the handling of heavy materials etc.
- 4. That the client is informed about his obligations according to the work environmental law in relation to the expected activities and volume of the project.

The project supervisor is also obliged to describe:

ensure that the work can be executed according to Safety and Health demands.

For further information, see the chapter regarding time schedule page 12.

**b.** Special risks in the project as well as to the immediate environment.

Examples to be mentioned:

- The list concerning dangerous work acc. to encl. A
- Special conditions in the project, limiting the individual employer's ability to use common technical appliances, working methods, materials etc.
- Working processes containing special risks, which have to be executed in common areas or areas where other activities are ongoing.
- Other special conditions acc. to encl. 1 in administrative order no. 574 regarding the obligations of project supervisors and consultants.
- Special conditions from surroundings e.g. traffic or other construction-projects neighbouring the project.
- c. Special risks as a consequence of existing conditions at the site/in the building - such as installations in the ground, buried high voltage cables and gas pipes, toxic dumps, polluted soil, asbestos in existing buildings and similar.

a. How the individual works or work phases are planned to In the case of special risks, the project should describe what special precautions like e.g. special technical appliances, personal appliances for protection social welfare precautions and similar prescribed by the project supervisor.

> Finally the project supervisor describe conditions influencing the future working environment for Operation and Maintenance of the building or civil work.

# **4.4**Summary of procedure regarding elaboration and updating of PSH

Basis for PSH in the tender material	Completion of PSH	Updating of PSH
Organisation of construction site	Completed after choice of contractors	Revision based on changes, amendments and need for detailing
Site plan Conditions on building site Existing conditions	Revision of drawings based on choice of equipment and working methods	Revision based on changes, amendments and need for detailing
Tender time schedule (elaborated by client and project supervisor in collaboration)	Time schedule is detailed in cooperation with the contractor/s	Revision based on changes, amendments and need for detailing
Specifications regarding:  Existing conditions  Risks caused by project design  Common precautions  Guidelines for the Individual employers	The specification is completed based on input from the contractors, e.g. during project scrutinity meetings	Revision based on changes, amendments and need for detailing  PSH is updated according to deviation/supervision reports and minutes from site- and security meetings



## 4.5

## Elaborating the basis for PSH

The bases for the individual elements in PSH are the specifications in the tender material at the time of tender.

It is recommended that the tender material contains a list specifying where the individual elements/specifications are found in the tender material.

The tender material shall contain following elements for a plan:

- 1. Organisation of the building site
- 2. Site plan
- 3. Time schedule
- 4. Description of existing and expected conditions

## 1. Organisation of the building site

Addresses and telephone list for client and project

If the coordinator appointed by the client is known at this point also his/her particulars should be included.

### 2. Site plan(s)

The site plans(s) should indicate where the project supervisor presuppose the location or specification of:

- Connection points for technical installations (electricity, water, sewage telephone), where the individual contractors can connect equipment, construction site sheds, etc.
- Traffic-, transport- and escape roads, which are/will be It is the client's responsibility to ensure that PSH contain a common for several employers (roads for vehicles / pedestrians, lifts, material hoists, stairs, etc.) incl. light for orientation.
- Prescribed/specified **technical appliances** (cranes, areas A close dialogue client/project supervisor is required, when for mixer, scaffolding, vacuum cleaners, etc.) and stationary workshops (cutting- and bending table, area for stones, circular saw etc.) incl. possible needed storage areas.
- Areas for materials for the individual contractors.
- Dump areas (containers) for the individual contractors. First Aid (telephone, fire equipment etc.).
- Site management (supervisor- and meeting cabin etc.).

 Welfare precautions for the individual contractors (Shed area, parking areas etc.).

The site plan should also indicate:

- required space for technical appliances and sheds etc. as stated
- · where and during what period of time the existing underground installations/installations in a building, will be available (high voltage cables, gas pipes etc.)
- special risks in the area (polluted soil, toxic depots, explosives, etc.) or in existing building (materials containing asbestos etc.) or
- location of working processes involving special risks (recommended)

### 3. Time schedule

Tender time schedule should show when:

- a. The individual employer has activities on the site,
- **b**. Activities involving special risks are ongoing, acc. to enclosure A or any other activity which may be dangerous to Safety and Health.
- c. There are common areas between the individual employers.

time schedule, which makes it possible to execute the project securely.

elaborating the basis for the time schedule. Client's time schedule is adjusted to project supervisor's description of how to coordinate the individual activities/working processes, to provide the best basis for proper Safety and Health conditions on the site.



The time schedule should be sufficiently detailed in order for the individual contractor to be able to assess the planned time for the execution of activities/work processes.

Further it should be so detailed that dangerous working processes can be identified, included activities which can not be executed simultaneously with- or nearby other activities.

## 4. Specification

### **Existing conditions**

Unless shown on the site plan, existing conditions should be described in the tender material. If special risks are identified, these risks should be clearly described. Likewise, precautions and measures to avoid such risks for the individual contractors should be clearly described.

If they cannot be replaced caused by the design of the project, technical documentation for this should be part of the specification.

The tender material should specify which special precautions (e.g. technical appliances and personal appliances for protection) should be used by the contractors when executing dangerous activities in common areas. Common areas could be the whole site if e.g. employees from one company are executing activities, which cause noise to other employees.

In case of special risk of emission of unhealthy substances, fire, explosion, accidents etc., coordination with contingency-, evacuation- and exercise plans should be described, including who is responsible for coordination.

## Risks caused by project design

and maintenance of this specific project should be described plant, traffic conditions, cranes from adjoining building Risks and other special conditions connected to execution in the tender material. In general dangerous substances and projects. materials should be replaced with less dangerous.

Possible risks from the project environment should be described e.g. if the neighbour to the project is a sewage

### **Common security provisions**

The tender material should describe what precautions the project supervisor prescribes/presupposes to be used, including demands for quality and quantity (could be shown on the site plan).

Typical common security provisions are listed in "Tools for elaborating PSH"

Examples of quality demands:

- · road covering/load under all weather conditions.
- load class and width of scaffolding related to the different users and if different areas for access and/or covering.

If e.g. the scaffolding has to be changed during the execution, such changes should be described, including who is responsible for the changes and when they should occur.

### Common welfare provisions

If the client deems it appropriate, it should be described in the tender material that the common welfare provisions are common for all, no matter the duration of the individual employers activities and number of employees.

Unless stated in a preliminary plan for manning, the tender material should describe how many persons are anticipated to be working when on the site.

When establishing of welfare provisions in several levels using wooden stairs, special fire requirements concerning access and escape routes shall be described.

### **Guidelines for the individual employers**

For the use of individual contractor in pricing and bidding it should be specified in the individual work specification in the tender material, who, and during what period of time, is responsible for establishment, control, maintenance and removal of the common provisions.

If not clearly stated on the site plan, it should be described, where and when the individual employer can:

- · Place sheds
- place technical appliances (e.g. cranes, mixers, scaffolding, vacuum cleaners etc.)
- place stationary workshops (e.g. cutting- and bending table, areas for stones, circular saw etc. and possibly storage areas, incl. ensuring space for weather precautions)
- store materials (e.g. partition wall elements, bricks, equipment for ventilation, radiators and similar heavy/bulky materials, which have to be placed on the storeys according to construction progress)
- · place garbage
- connect equipment to electricity, water, sewage, etc.
- use common security provisions (e.g. transport- and access roads, cranes, vacuum cleaners, scaffolding etc.)

If there are special demands for the execution of the work, e.g. use of technical appliances, which limit noise, vibration and dust, it should be described as well.



## 4.6

## Completion of PSH before start of construction

Upon concluding client's agreement with the contractor(s) the PSH should be completed in accordance with the elaborated basis and in accordance with other specific agreements made.

**Site plan(s)** is revised according to the knowledge about the individual trade contractors/main contractors choice of technical appliances, space requirements etc.

"Organisation of the building site" (page 12) is further elaborated with a complete address- and telephone list containing: names of companies and –addresses, contact persons, telephone numbers, fax numbers and possibly e-mail addresses on:

**Time schedule** is detailed/revised in cooperation with the trade contractor/main contractor reflecting all dependencies.

- · Client and client's supervisor
- · Design companies
- · Contractors and their site manager
- Trade contractors, quantity surveyor/subcontractor companies, surveyors
- the person who has designed the PSH on behalf of the client
- The person who has to update the PSH on behalf of the client
- · Security coordinator appointed by the client
- Composition of the security organisation/participants in security groups and possibly security committees known at that time.

The other elements in the plan are organized similarly by as demand arises.

#### Contractor's wishes to PSH

The contractors should present their **security organisation** at the start up meeting for the specific project. Contractor's considerations regarding working environment in their specific activities, should be presented and incorporated in the final completion of the PSH.

## Start up meeting(s) It is recommended that time is reserved for a joint scrutinity of the DSH before start of construction (during the project

of the PSH before start of construction (during the project scrutinity meetings).

The different elements in the PSH are scrutinized and discussed with the trade contractor/main contractor and client's security coordinator. The person who has elaborated the PSH should chair this meeting. The purpose is to provide all actors with the best possible knowledge at the common working environment on the site and in this way give the contractors the best possibility to plan necessary precautions.

Major changes in the sequence of working processes, and/or duration of these, and/or materials, substances, constructions, plan designs, detail solutions and working methods (caused by suggestions/demands from the contractors) should be approved by the designer in cooperation with the clients coordinator. This approval should be based on careful considerations regarding impact on other activities/employers.

After this, the PSH will be completed and approved finally by the client.

PSH should be designed in an accessible form. PSH should be available before start of construction and be available to the employers and their employees when they start on the site.

Also contractors having activities at a later stage should be informed about the main content in the PSH before start of construction.

### doing so, the following should be observed

- that errors and defects in the common precautions are reported to the coordinator, who will immediate inform the contractor being responsible for establishment and maintenance of the specific precautions.
- that necessary not planned common precautions will be included in PSH with specification of "who does what when".

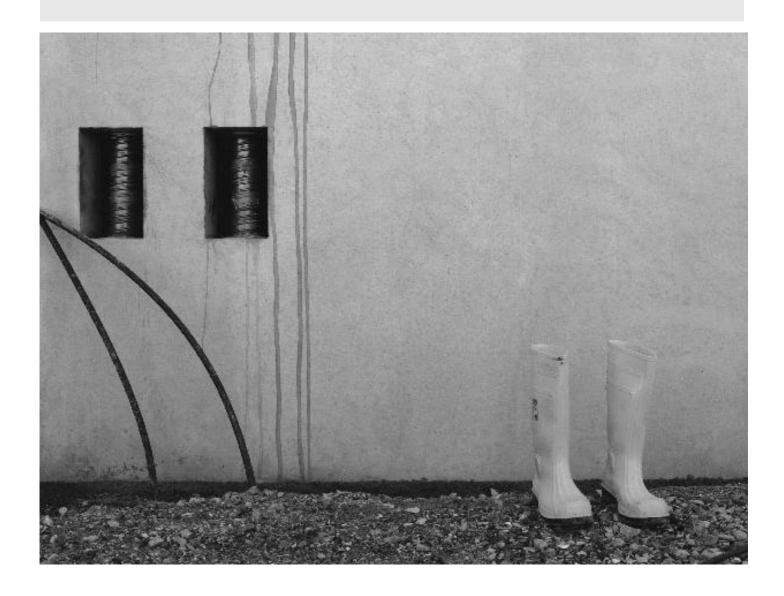
It is recommended that the coordinator-in case of errors and defects in the common precautions-be given the possibility to make correction(s) of the reported cases.

It is recommended, that the coordinator keeps a record of all products, which are available to labelling, used by the individual employer in the individual working processes, incl. manuals. This record will be useful especially in case of accidents, fire and other specific contingency conditions.

Changes caused by the coordination, have to be agreed upon information must be given in the ordinary safety meetings. A written agenda and minutes from the meeting will clarify the agreements (with preceding/subsequent discussion on site meetings.

Minutes from the security meetings shall be available to all on the building site and forwarded to the participants in the meeting, the client, all working managers, the employed companies, security groups and possible representatives of the employees.

It is recommended that the coordinator keeps a record of the persons receiving the minutes.



## **4.7** Updating the PSH during the construction phase

During the entire building period the PSH shall be available to all employers and their employees at the building site. Also the PSH should be part of the cooperation core with regards to safety and health.

### Introduction to new employers

The client's coordinator should ensure, that all new coming employers and their employees are provided with prior information regarding the actual updated PSH, to starting up on the building site.

It is recommended to hold an introduction meeting just before new trades are started. During this meeting the PSH is scrutinized with particular attention to conditions in the time schedule, choice of materials (if there are special demands to these), storage of materials and waste, demands for cleaning, all of which are relevant for the new coming employer at the site.

Similar introduction meetings are being held by the main contractor in line with taking on subcontractors.

## **Description of changes**

Changes in the time schedule/working processes may occur during the execution of the building. It is important to include all changes in the PSH including:

- · new common areas
- risk of exposing others to hazards from dust, noise etc.
- changed use of scaffolding, for example the use of a huge façade scaffolding for advertising, which requires better anchoring than assumed in the tender material specification.

Finally it is important that the PSH specifies who is responsible for what.

It is recommended that all changes in PSH are described in minutes from the ordinary security meetings (with preceding/subsequent discussion on site meetings)

### Visible security organisation on the site

PSH should be continuously updated. It is recommended that the composition of the security organisation is always visible. From this it shall be appear ant who will represent the individual employers in a security group and also who is representing the individual employers and security groups at the security meetings.

### Coordination

Even with a perfect planning at project level, it is necessary to coordinate and control details of the common security precautions.

The coordination shall ensure that the conditions are safe and sound for everybody on the building site throughout the building period.

## **5.** PSH in relation to the different contract forms

- 5.1 Trade contract
- 5.2 Main contract
- 5.3 Turn key contract

## **5.1** Trade contract

## **Completion of PSH**

Completion of PSH shall take place upon selection of the trade contractors before start of building site.

The client should employ the project supervisor to complete PSH because the project supervisor has already elaborated the complete basis for PSH on behalf of the client.

### The trade contractor shall:

- send name, address etc. on own building site organisation to the project supervisor
- send information regarding security organisation
- Participate in possible introduction meetings, where PSH is scrutinised and where own considerations regarding working environment can be expressed.
- Be aware of coordinators possible wish for manuals regarding the use of substances and materials
- Forward own suggestions concerning design of the building site, own specially dangerous activities, specific security precautions, welfare provisions etc.

## **Updating and coordination**

The client is appointing a coordinator who is responsible for the coordination of the individual trade contractors. The coordinator should have the authority and mandate to ensure that the individual trade contractor's obligations concerning working environment are fulfilled.

In principle the client should leave the updating of PSH to the appointed coordinator.

It is obvious that the coordinator is acting on behalf of the client and as such possesses the best qualifications to assess the possible consequences an updating of the PSH may have on other parts of the PSH.

It is obvious that the coordinator is in charge of the detailed updating of PSH during the construction. A part of the coordinator's obligations is to chair common security meetings (not to be confused with trade contractors own security meetings) at least once every 14 days. In practise the updating of the PSH should happen during these meetings and appear from the minutes (with preceding/subsequent discussion at site meetings).



## **5.2** Main contract

## **Elaborating the basis for PSH**

The demarcation of the individual subcontractor's activities regarding common safety-, welfare- and technical provisions should be done by the main contractor in his tender material to the subcontractor. Based on a discussion with the client is also elaborated and included a time schedule for the individual subcontractor.

Completion of PSH\*

The client should hand over completion of the PSH to the main contractor.

Whoever is completing PSH, must transfer the project supervisor's specifications from the tender material to PSH, taking into account that it is the project supervisor's responsibility to ensure that the tender material contains all necessary specifications.

No matter what the PSH must be completed before start of the construction.

## Updating and coordination

The coordinator should ensure approval from the project supervisor in case of updating of PSH caused by e.g. changes in time schedules or changes in the dependencies of activities. Similarly the project supervisor should confer with the coordinator in case of changes in the time schedule.

#### The main contractor should be aware of:

• Introduction meetings should be held when taking on subcontractors. During these meetings special attentions shall be given to going through the PSH.

## **5.3** Turnkey contract

The client will normally engage the turnkey contractor to execute all obligations regarding designing and completion of the PSH incl. Demarcation\*\*.

<sup>\*</sup>The client can also engage the project supervisor to complete the PSH. In this case, the project supervisor must get the information regarding demarcation from the main contractor. If the PSH is completed by the designer, the main contractor should ensure the forwarding of name, address etc. on own site organisation and information regarding security organisation.

<sup>\*\*</sup>A close cooperation between the turnkey contractor and the coordinator appointed by the contractor is necessary, if the coordinator is coming from client's own organisation

## **6.** Construction sites, with several contractors with a maximum of 10 employees

On construction sites, with several employers with a total maximum of 10 employees, the involved employers shall continuously agree how to arrange the building site.

An introduction meeting should be held when commencing construction or when new employers join up during the construction period. The meeting should settle agreements regarding mutual coordination and demarcation. It is recommended that the working environment is a part of meetings between the contractors and the client.

In principle the content (or contents) of the agreement is the same as in the PSH, but only when relevant to such smaller works.

If dangerous work, according to enclosure A, is executed, it is important to agree on how this can be executed without risk to others. this guidance. This does not exempt the individual employers, who are on the site simultaneously from making assessment and coordination.

It is recommended that the project supervisor dealing with this type of construction sites elaborates a PSH based on the check lists as seen in "Tools for elaborating PSH" in this guidance. This does not exempt the individual employers, who are on the site simultaneously from making assessment and coordination.

## 7. Construction sites exceeding a certain size have to be notified at Labours Inspectorate

The client has to notify the local Labour Inspectorate before the construction starts if:

- **1.** The duration of the work is expected to exceed 30 working days and min. 20 employees simultaneously or
- **2.** The supposed volume of work is exceeding 500 man-days.

Notification must be done using a formula, which can be required at the local Labour Inspectorate.

A copy of the notification shall be fixed at a visible place at the site.

If there is only one employer during the whole construction period, this employer shall assess safety and health before start of construction.

If more than one employer is involved at any time during the construction process, the client is obliged to elaborate a PSH.

It is therefore recommended that the client ensures that a PSH is elaborated, even if only one employer is planned to be on the site.



## 8. When dangerous work is carried out on a construction site, regardless the size of the site

The employers executing dangerous work on a site are obliged to, according to the rules, make a written assessment of how to execute the work to ensure the best basis for proper safety and health conditions. An assessment of risks can be written instruction for the safe execution of the dangerous work. It can be a WPA ("Working process assessment"), which is tailor made to the specific physical and other conditions on the individual site, but it can be assessed in other ways. In "Tools for elaborating PSH" to this guidance, you can find forms containing a written safety instruction for dangerous work.

The following works are ordinarily classified as dangerous:

- · Excavation in depths exceeding 5 meter.
- · Work with drops exceeding 5 meter.
- Connecting to or changing of existing sewage systems.
- · Work with contaminated soil.
- · Work nearby high-voltage transmission lines
- Asbestos work and other work involving cancer producing substances
- · Demolition work
- Mounting and de-mounting of heavy pre-fabricated elements (more than 500 kg)

Dangerous work is defined as working processes, mentioned in enclosure A or similar work, which is considered as particularly dangerous work by the authorities.

Irrespective the size of the site, it is important to make agreements regarding demarcation of the dangerous work, in order to separate the dangerous work from other work, timewise or physically.

## **9.** The legal basis for the guidance

The client's and project supervisor's obligations are defined in "Health and safety at work act" § 37 and § 33 and elaborated in a number of administrative orders from the ministry of work/employment.

Employer's obligations are scrutinized in Labour Inspectorate administrative order no. 589 of 22. June 2001 regarding "Arrangement of construction sites and similar working places".

Client's obligation concerning demarcation, planning, coordination and notification is defined in ministry of work administrative order no. 576 of 21. June 2001 regarding "Obligations of the client".

Cooperation regarding safety and health is defined in Labour Inspectorate administrative order no. 575 of 21. June 2001 regarding "The companies safety and health work" as changed by administrative order no. 491 of 20. June 2002.

Project supervisor's obligations are defined in ministry of work circular no. 574 of 21. June 2001 regarding "Project supervisor's and consultants obligations".

10. Enclosure
Enclosure A List with comments regarding dangerous work according to enclosure 1 to administrative order no. 589- administrative order on construction sites

List of dangerous work	Comments to list regarding dangerous work.	
Work involving a special risk to get buried, to sink down or to fall down caused by the activities or the applied working methods or caused by factors in the surroundings of the site or	Re 1 Excavation in depths exceeding 5 meter and work in such excavations	
the constructions.	Work in/on substances, where there is a risk of sinking more than 1,2 meter down.	
	Work where the drop exceeds 5 meters.	
2 Work, exposing the employees to chemical or biological substances having special danger for safety and health of the employees or involving legal demands for health control.	Re 2 Work with substances or materials, which is included in administrative order on construction site § 14 subs 2.	
employees of involving legal demands for fleatin control.	Work, executed according to rules in the sewage administrative order (administrative order no. 473 of 7. October 1983 regarding sewage work etc. as changed by administrative order no. 9 of 14. January 1988.).	
	Work, where chemical contamination has been discovered or may be suspected.	
	Demolition work exposing employees to chemical or biological substances.	
	If a plan is needed related to a special administrative order, this would normally be sufficient like e.g. by asbestos, isolation, epoxy, lead and cancer producing substances and materials.	
3 Work exposing workers to ionising radiation which requires the appointing of controlled and monitored areas as defined in article 20 of the Councils Directive 80/836/Euratom	Re 3 Article 20 in the Counsels directive 80/836/Euratom, is defining that employees exposed for more than 1/10 of the annual radiation dose-limits with regards to radiation-exposed employees, is included by this article. Reference is made to chapter 3 in National Health Service administrative order no. 838 of 10. December 1986 regarding dose-limits for ionising radiation.	
4 Work nearby high voltage transmissions.	Re 4 If the work is executed in such a way that the safety demands in the high voltage regulations cannot be observed, e.g. safety distances, which appear from Labour Inspectorate-notice no. 2.08.1 regarding excavators.	
5 Work, involving danger of drowning.	Re 5 Work in water or where there is a risk of falling into the Water more than 1,20 meter deep.	
6 Work in wells and tunnels and underground work.		
7 Work under water where diving equipment is needed.		
8 Work in pressure chamber.		
9 Work involving the use of explosives.		
10 Mounting and demounting of heavy prefabricated elements.	Re 10 Mounting and demounting of prefabricated concrete Elements, i.e. normally with a weight of more than 500 kg.	