

Investigation and risk assessment

*in systematic work environment management
- a guide*

This publication is intended as help and guidance in connection with investigation and risk assessment as a part of systematic work environment management. Although based on the Provisions "Systematic Work Environment Management" AFS 2001:1 (amended by 2003:4), it does not itself have the status of Provisions or General Recommendations. The Provisions, however, are appended, complete with amendments.

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Appendix: Systematic Work Environment Management,
AFS 2001:1, with amendments by AFS 2003:4.

Investigation and risk assessment – the foundation of a good work environment

Most jobs involve risks of ill-health and accidents. This applies to both large and small undertakings and to both the private and public sectors.

Every moment of every day, managers, supervisory staff and workers assess risks in the workplace. This guide describes how employers and employees can consciously investigate working conditions, identify risk sources and assess risks. Examples are given of methods of investigation and risk assessment, and the guide also instances measures which can prevent employees being injured or otherwise being harmed.

The guide is based on the Provisions of the Work Environment Authority on Systematic Work Environment Management (AFS 2001:1). Investigation and risk assessment are the core activity of preventive work environment management and a precondition of effective measures to create a good work environment, both physically and mentally speaking.

This guide is primarily intended for you, the employer. It is your task to ensure that employees and safety delegates can take part in the process of investigation and risk assessment. We believe it provide both help and inspiration to everyone intent on achieving a better work environment through systematic work environment management.

Kenth Pettersson

Director-General
The Swedish Work Environment Authority

An everyday example of risks

How do we know whether something implies a risk or not? A banana skin, for example, can under certain conditions entail a risk of slipping. The magnitude of that risk will depend on where the banana skin has been dropped. It is more of a risk in mid-pavement than in the gutter. If someone has put it in the waste bin, there is no risk at all of anyone slipping on it.

How likely is it that someone will slip on a banana skin left on the pavement? This will depend partly on how fast they are walking, whether they look where they are going and how they tread on the banana skin. Suppose someone slips and falls. What can be the consequences? They will depend, for example, on how the person lands, whether the ground is rough or smooth and how much or how little the person is wearing.

The example of the banana skin can be transposed to the work environment. If someone has spilt oil in the middle of a factory floor which a lot of people walk on, there is a risk of people slipping. If, on the other hand, the oil has escaped into one corner of the premises, there is hardly any risk of anyone trading on it.

Both the banana skin and the patch of oil in the middle of the floor are sources of risk in the examples given.

Some common sources of risk

- work on scaffolding
- wet/littered floors
- noise
- monotonous, repetitive work
- dangerous substances
- too much/too little to do
- jobs that are too difficult/too easy
- air contaminants
- night work
- unclear expectations concerning work input
- pressure of time
- defective equipment
- heavy lifting, unsuitable work postures
- potentially violent people

What are the commonest sources of risk at your workplace?

A short glossary of terms

Risk – The likelihood of ill-health or accidents at work occurring, and their consequences if they do.

Risk source – A source of possible ill-health or accidents.

Investigation of working conditions – Systematic identification of risk sources in the workplace.

Risk assessment – An assessment of the risks of anyone incurring ill-health or meeting with an accident, the purpose of the assessment being to decide whether or not remedial measures are needed.

Impact assessment – A risk assessment when changes are planned to the operation.

Accident – A physical or mental injury resulting from a sudden event, e.g. a worker breaking his leg when he falls off a ladder.

Ill-health –

- 1) A disease according to objective medical criteria.
- 2) A physical or mental functional impairment which is not a disease. This is the case, for example, when a worker repeatedly moving things from right to left develops musculoskeletal disorders of the neck and shoulders. Another person may have difficulty sleeping, become depressed and have difficulty concentrating when performing complicated tasks under great pressure of time. This can result in the worker no longer being capable of a full work input.

Healthy personnel mean better business

Purely economically speaking, you can benefit from your employees being at work, in good health and in a good frame of mind. If an employee is taken ill or meets with an accident, you have to fork out sick pay and a replacement worker's wages.

Accidents often result in damage to material and equipment, and production is liable to be disrupted. If a worker suffers from ill-health, this can lead to mistakes and poorer-quality work, which can have serious consequences, for example, if the work involves dealing with people.

Different roles

As an **employer** you are responsible for ensuring that investigations and risk assessments are carried out, remedial measures taken and action plans drawn up. Management and supervisory staff need to be able to carry out investigations and risk assessments independently, by means of one-to-one interviews, staff meetings and safety/work environment inspection tours. As a rule they also need to know about other common methods of investigation and risk assessment.

Employees and **safety delegates** are often the people who are best informed concerning actual working conditions, and must therefore be enabled to take part in investigations and risk assessments. Workers' experience is important when it comes to suggesting remedial measures and taking part in the framing of action plans.

Occupational safety and health services can be engaged for investigation and risk assessment when insufficient competence is available in-house.

Risk investigation and assessment

1. Define and delimit the task or tasks to be investigated.
2. Work in a group with the supervisor, the workers involved and safety delegates. Sometimes, for a detached view, it may be a good idea also to include an outsider, such as an OSH (occupational safety and health service) representative or someone else with expert knowledge.
3. Review your figures for sickness absence, injuries and incidents. What were the causes of the ill-health, accidents or incidents?
4. Go over the working operations one by one.
 - Leave no stone unturned when looking for risk sources. Concentrate first on things you can see, hear and smell in the surroundings. Consider working equipment, noise, the configuration of the premises, air contaminants etc. Some risk sources – radiation and chemical substances, for example – are hard to identify.
 - Include other things, such as pressure of time and heavy work load, skills deficiencies and inadequate work supervision.
 - What working technique does the employee use when handling materials and equipment?
 - Think too about things which occur less frequently, such as servicing and repairs.
5. For useful guidance concerning hazards of the work environment, read Provisions issued by the Work Environment Authority and applicable to your operation.

Risk assessment

Risks and sources of risk	serious risk	other risk
1		
2		
3		
4		
5		
6		
7		
8		

The form is

Action plan

Measures	person in charge	deadline.
1		
2		
3		
4		
5		
6		
7		
8		

s available as a folder (quote ADI 544 when ordering) or can be downloaded from www.av.se

Methods for investigating working conditions

Managers and supervisory staff need, in the course of their everyday work, to be observant of potential causes of ill-health or accidents. They can spot signs of employees not feeling well. Indications which they need to take seriously include, for example, high sickness absenteeism and an individual worker being downcast, having difficulty in concentrating or avoiding the company of other employees.

Here are some investigation methods which you can use regularly for identifying risk sources. The essential thing is for the investigations to be conducted systematically.

- **General safety/work environment inspection** tours are a common method of investigating the physical work environment and usually generate suggestions for measures to be taken.
- **Targeted safety/work environment inspection** tours can be carried out if you wish to raise a particular topic, such as physical or mental workload.
- **Staff meetings** are an opportunity for staff to report physical and psychosocial stresses. To avoid losing sight of work environment issues, you can make the work environment a regular item on the agenda for these meetings.
- **One-to-one discussions** between manager and employee can convey a view of working conditions as the employee sees them.

- **Measurements** are sometimes needed for risk assessment. Noise, air contaminants and vibrations may need to be measured, for example.
- **Medical checks** are sometimes needed as stipulated by the Work Environment Authority, e.g. in work involving asbestos or thermosetting plastics, and in connection with night work.
- **Interviews or written questionnaires** are other investigation methods.

Usually you will need to employ several different investigation methods in order to identify the risk sources.

Risk assessment

Once you have together identified the risk sources, your next step will be to assess the risks of ill-health and accidents. Answering these questions may help.

- How likely is it that something will happen?
- Can one or more employees be exposed to risks?
- Which operations are riskiest?
- How often are employees exposed to these risks?
- How long are they exposed to them?
- Do you have female personnel? Women are often exposed to special risks.
- Do you employ minors? Special rules apply to them.
- What kind of ill-health or accident may occur?
- How seriously can people be injured?
- How is similar work done within the enterprise?
- How is similar work done in your enterprise compared with the industry in general?

If you judge the risks to be serious, measures to eliminate them will naturally have priority.

When must investigation and risk assessment be carried out?

Managers and supervisory staff need to be continuously on the look-out for risks of ill-health and accidents in the workplace. You need to find out about the risks already at the planning stage, for example before starting up a new operation or a building project.

You must carry out regular investigations of working conditions, and so there have to be routines describing when, how and by whom the investigations are to be conducted. Work out the routines in consultation with the employees and safety delegates.

In the event of an incident or accident, you must find out the causes of what happened and find out whether there are risks which can lead to similar occurrences. If there are great or numerous risks present in the operation, you will need to carry out investigations and risk assessments at frequent intervals.

When planning changes to your operation, you must carry out an impact assessment. This may apply, for example, when you propose altering facilities, devices, working processes, working methods and work organisation, and also when planning to use substances which can cause ill-health or accidents.

To be able to make an impact assessment, you need clear input data. Planning must have reached a stage where it is possible to judge the physical and mental risks which may be involved. You also need to know which groups of employees may be exposed to the risks.

Tackling the risks!

As an employer you must take steps to eliminate the risks or to reduce them as far as possible, and you must do so immediately or as soon as is practically feasible.

Once you have decided which risks need to be tackled, you should concentrate primarily on eliminating the source of risk. It would, for example, have been a good thing if someone had removed that banana skin from the street or wiped up the patch of oil. If the source of risk cannot be removed, it is important to minimise the risk occurring. Sometimes not all risks can be eliminated. If so, you must take other measures which can avert ill-health and accidents in the workplace – measures like the following, for example:

- guidance
- help in prioritising duties
- an opportunity of trying other duties
- an opportunity of changing working hours
- an opportunity for taking breaks
- personal protective equipment
- social support
- special working instructions
- special assistive devices, e.g. lifting aids
- technical safety devices
- modified working routines
- improved knowledge of risks and preventive measures

You must check all the measures taken and decide whether they are sufficient or whether additional measures need to be taken!

Documentation – write down the risks and how they are dealt with!

All employers are obliged to document all risks and divide them into serious and non-serious. The same goes for risks identified in the course of a risk assessment when changes are planned to the operation. You may find it practical to use the form on the pages 12–13. You must also write down risks which you deal with directly. These particulars can provide useful hints for the next round of investigation and risk assessment.

If you do not deal with the risks immediately, you must plan for the measures to be taken as soon as possible. Write down the measures to be taken in the action plan part of the form. Indicate the deadline for taking them and who is to ensure that they are taken. The action plan shall be revised continuously as measures are completed or new ones are planned.

Examples of additional information

- Provisions, books and brochures from the Work Environment Authority
- The Work Environment Authority's website www.av.se
- checklists and books from Prevent, www.prevent.se
- information from The Swedish Work Environment Association, www.arbetsmiljoforum.com
- information published by your trade organisation

APPENDIX AFS 2001:1 (AMENDED BY 2003:4)

Provisions of the Swedish Work Environment Authority on Systematic Work Environment Management

ADOPTED 15TH FEBRUARY 2001 (AND 22ND MAY 2003)

Translation

In the event of disagreement concerning the interpretation and content of this text, the printed Swedish version shall have priority.

Provisions of the Swedish Work Environment Authority on Systematic Work Environment Management AFS 2001:1 (amended by 2003:4)

Adopted 15th February 2001 (and 22nd May 2003).

The following Provisions¹⁾ are issued by the Swedish Work Environment Authority pursuant to Section 18 of the Work Environment Ordinance (SFS 1977:1166).

¹⁾ Cf. Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (OJ L183, 29.6.89, p. 1)

The Swedish Work Environment Authority, exercising powers conferred in Section 18 of the Work Environment Ordinance (SFS 1977:1166), resolves that Sections 6 and 7 of its Provisions (AFS 2001:1) on Systematic Work Environment Management shall be worded as given below.

The Swedish Work Environment Authority further resolves, concerning its General Recommendations on the implementation of the Provisions on Systematic Work Environment Management, that the sections headed Guidance on Section 6 and Guidance on Section 7 shall be worded as given below.

Scope of the Provisions

Section 1 These Provisions apply to all employers. Persons renting manpower are equated with employers.

Definition of systematic work environment management

Section 2 For the purposes of these Provisions, systematic work environment management means the work done by the employer to investigate, carry out and follow up activities in such a way that ill-health and accidents at work are prevented and a satisfactory working environment achieved.

Natural part of the activity, participation, work environment policy and routines

Section 3 Systematic work environment management shall be included as a natural part of day-to-day activities. It shall comprise all physical, psychological and social conditions of importance for the work environment.

Section 4 The employer shall give the employees, safety delegates and pupil safety delegates the possibility of participating in systematic work environment management.

Section 5 There shall be a work environment policy describing how working conditions in the employer's activity shall be in order for ill-health and accidents at work to be prevented and a satisfactory working environment achieved.

There shall be routines describing how systematic work environment management shall proceed.

The work environment policy and the routines shall be documented in writing if there are at least ten persons employed in the activity.

Allocation of tasks. Knowledge

Section 6 The employer shall allocate the tasks in the activity in such a way that one or more managers, supervisors or other employees are tasked with working for the prevention of risks at work and the achievement of a satisfactory working environment.

The employer shall see to it that the persons allotted these tasks are sufficient in number and have the authority and the resources that are needed. The employer shall also see to it that they have sufficient knowledge of

- rules material to the working environment,
- physical, psychological and social conditions implying risks of accidents and ill-health,
- measures to prevent ill-health and accidents, and
- working conditions conducive to a satisfactory working environment.

The employer shall see to it that those allotted the tasks have sufficient competence for the conduct of a well functioning systematic work environment management.

In addition, the stipulations in Appendix 1 shall be complied with.

The allocation of tasks shall be documented in writing if there are at least ten persons employed in the activity.

Section 7 The employer shall see to it that the employees' knowledge of the work and of the risks which the work entails is sufficient for ill-health and accidents to be prevented and for a satisfactory working environment to be achieved. Where the risks entailed by the work are serious there shall be written instructions for the work.

Risk assessment, remedial measures and follow-up

Section 8 The employer shall regularly investigate working conditions and assess the risks of any person being affected by ill-health or accidents at work.

When changes to the activity are being planned, the employer shall assess whether the changes entail risks of ill-health or accidents which may need to be remedied.

The risk assessment shall be documented in writing. The risk assessment shall indicate which risks are present and whether or not they are serious.

Section 9 In the event of an employee meeting with ill-health or an accident at work and of a serious incident at work, the employer shall investigate the causes, so that risks of ill-health and accidents can be prevented in future. Every year the employer shall compile a written summary of ill-health, accidents and serious incidents occurring at work.

Section 10 The employer shall carry out, immediately or as soon as is practically possible, the measures which are needed for the prevention of ill-health and accidents at work. The employer shall also take such other measures as are needed in order to achieve a satisfactory working environment.

Measures not carried out immediately shall be entered in a written action plan. The plan shall indicate when the measures shall be effectuated and who is to see to it that they are effectuated.

Measures effectuated shall be inspected.

Section 11 Every year the employer shall carry out a follow-up of systematic work environment management. If it has not functioned satisfactorily it shall be improved.

The follow-up shall be documented in writing if there are at least ten persons employed in the activity.

Occupational health services

Section 12 When competence within the employer's own activity is insufficient for systematic work environment management or for work relating to job modification and rehabilitation, the employer shall engage occupational health services or corresponding expert assistance from outside.

When occupational health service or corresponding expert assistance are engaged, they shall be sufficient in scope and shall have sufficient competence and resources for this work. In addition, the stipulations in Appendix 2 shall be complied with.

Entry into force

The Provisions AFS 2001:1 enter into force on 1st July 2001.

The Provisions AFS 2003:4 enter into force on 1st July 2003.

The Provisions of the National Board of Occupational Safety and Health (AFS 1996:6) on Internal Control of the Working Environment are repealed with effect from the same date.

KENTH PETTERSSON

Lars Eklund

Göran Lindh/Maria Hagberg

Employees with tasks as referred to in Section 6

The persons to whom the employer has allotted tasks relating to management of the working environment, as provided in Section 6, shall

- be given access to summaries as referred to in section 9 of these Provisions and to work injury reports pursuant to the Work Injuries Insurance Act (1976:380),
- be given access to information concerning the preventive work environment measures in the activity and concerning measures stipulated by the Swedish Work Environment Authority, and shall
- be allowed to convey viewpoints to the employer concerning
 - the selection of other employees with tasks relating to management of the working environment,
 - the selection of the employees needed to carry out first aid, fire-fighting and evacuation,
 - the engagement of occupational health services or corresponding expert assistance from outside,
 - the structuring of work environment management,
 - risk assessments,
 - measures for the prevention of ill-health and accidents,
 - personal protective equipment which may be needed,
 - summaries and work injury reports,
 - the information to which they need access concerning preventive work environment measures in the activity and concerning measures stipulated by the Swedish Work Environment Authority, and
 - the design of information concerning these matters.

Appendix 2

Occupational health services or corresponding expert assistance as referred to in Section 12

The employer shall see to it that the occupational health services or corresponding outside expert assistance engaged as provided in Section 12

- receive information concerning the factors affecting or suspected of affecting the employees' health and safety,
- have access to information concerning
 - current work environment risks,
 - preventive measures, and
 - the measures taken to appoint, train and equip the employees needed to carry out first aid, fire-fighting and evacuation.

The information shall concern both the activity as a whole and each individual workplace or each individual job.

General Recommendations of the Swedish Work Environment Authority on the implementation of the Provisions on Systematic Work Environment Management

The following General Recommendations are issued by the Swedish Work Environment Authority on the implementation of its Provisions (AFS 2001:1) on Systematic Work Environment Management.

General Recommendations have a different legal status from Provisions. They are not mandatory. Instead they serve to elucidate the meaning of the Provisions (e.g. by explaining suitable ways of meeting the requirements, giving examples of practical solutions and procedures) and to provide recommendations, background information and references.

Background

Purpose of the Provisions

Under Chap. 3, Section 2 of the Work Environment Act, the main responsibility for the working environment in the activity devolves on the employer. Chap. 3, Section 2 a describes, in general terms, how that responsibility is to be discharged.

The Provisions on Systematic Work Environment Management enlarge on and specify the procedure to be followed by the employer in discharging his responsibility. Other Provisions of the National Board of Occupational Safety and Health and the Swedish Work Environment Authority supplement the rules on work environment management, e.g. as regards routines, knowledge and risk assessment.

Provisions on Internal Control of the Working Environment came into force on 1st January 1993 (AFS 1992:6). Revised rules took effect on 1st March 1997 (AFS 1996:6). The new Provisions have been given a different name, but the basic methodology of systematic work environment management remains unaltered.

Stipulations have been added requiring persons renting manpower to conduct systematic work environment management, as have Provisions on occupational health services, and in several respects the rules have been elucidated and simplified.

The EC frame directive

As a Member State of the European Union, Sweden is required to transpose the EC Directive on the introduction of measures to encourage improvements in the safety and health of workers at work (89/391/EEC). The Provisions on Systematic Work Environment Management transpose parts of the Directive, for example, through the stipulations concerning work environment policy, allocation of tasks, expert assistance from outside, and written risk assessments.

Guidance on individual Sections

Scope of the Provisions

Guidance on Section 1

Employer

These Provisions refer to an employer in the legal sense, meaning a natural or legal person with one or more employees.

A small undertaking can be run as a company. It can also be run without being a company, in which case it is operated in the owner's name or under a special name of its own. When the undertaking is run without a company, the employer is a natural person. When, on the other hand, it is run as a company or association, the employer is a legal person.

Partnerships, limited companies, associations, foundations, municipalities, county councils, parishes etc. are all legal persons. The state is a legal person but is, as an employer, represented by public authorities and public enterprises.

The person renting manpower

A person renting manpower is duty bound – as regards the work to which the rental refers – to comply with the Provisions on Systematic Work Environment Management. This can, for example, mean investigating working conditions, assessing risks, taking remedial measures and issuing instructions.

The person hiring out manpower

An employer hiring out manpower has no control over the place where the work is done, nor over the facilities and machinery existing there. This being so, it is important that he should plan and follow up the work carefully, e.g. as regards the choice of workplace, duties and working hours, and overall experience of the rental transaction.

The person hiring out manpower should be vigilant with regard to the total physical and mental burden on the employee when he or she is rented out to different places. The employer hiring out manpower remains responsible for the employees and is duty bound to carry out long-term measures relating to the working environment, e.g. with regard to training and rehabilitation.

Definition of systematic work environment management

Guidance on Section 2

The term “systematic work environment management”

The Provisions mean that systematic work environment management encompasses the whole of the activity, regardless of whether it is carried on in the same place all the time, is dispersed or is moveable. It also applies to teleworking, e.g. when the employee works from home.

Work environment management needs to be conducted both in the course of regular operations and in connection with changes, such as reorganization measures and construction, and also when new working and production methods are being introduced.

It is important that work environment management should not be confined to the work environment of the majority of workers but should also include conditions which perhaps affect only one or a few of them.

Ill-health, accidents and a satisfactory work environment

The purpose of the stipulations in the Work Environment Act, the Work Environment Ordinance and the rules issued by the National Board of Occupational Safety and Health and the Swedish Work Environment Authority is to prevent ill-health and accidents and to achieve a satisfactory working environment.

Ill-health can mean both illnesses defined by medical, objective criteria, and physical and mental functional disturbances of various kinds which are not illnesses in the objective sense. The latter include, for example, various forms of stress reaction and musculoskeletal disorder. Conditions of this kind can lead to illness. It is the intensity of the experiences, their duration and the ability of the person concerned to function as before which decide whether ill-health is present.

Accidents mean physical or mental injury resulting from a sudden event. An accident can lead to both slight injury and fatality.

A satisfactory working environment is characterized, for example, by the possibility of influence, freedom of action and development, variety, co-operation and social contacts.

Natural part of the activity, participation, work environment policy and routines

Guidance on Section 3

Natural part of the day-to-day activity

Work environment issues need to be handled within the activity in the same way as production, economics and quality, not as a separate system. Many operational decisions have a bearing on working conditions, and the consequences for the work environment therefore need to be assessed and considered before the decisions are taken.

Chap. 3, Section 2 a of the Work Environment Act makes it the duty of the employer to have an organization for job modification and rehabilitation. This activity should be co-ordinated with systematic work environment management.

The employer can also apply voluntary systems of quality assurance and environment management. Systematic work environment management can, where appropriate, be co-ordinated with these systems, but it is important that, when thus co-ordinated, work environment issues should continue to receive sufficient scope and attention, e.g. as regards questions concerning musculoskeletal ergonomics, psychosocial conditions, job modification and rehabilitation.

All questions with a bearing on the working environment

There are many different factors at work by which the employee is physically and mentally affected. Together these factors make up the employee's total working environment. They include, for example, noise, air quality, chemical health hazards and machinery, as well as organizational conditions such as Work load, working hours, leadership, social contacts, variation and the possibility of "rest and recovery".

The employer needs to take into account all factors potentially impacting on the individual persons' work situation. This does not only mean things capable of adversely affecting health and safety. A good work environment contributes towards good health and means more than the absence of illness and accidents.

Guidance on Section 4

Employees

Everyone employed in the activity is an employee. This includes managers and supervisory personnel, e.g. the managing director of a company and the chief executive of a local authority.

Trainees, apprentices, temporary staff, probationers and project teams are also employees. Pupils, conscripts and others serving in the total defence system,

together with inmates of penal and nursing institutions doing work they are referred to are also equated with employees.

It is important that the individual employees should participate in everyday systematic work environment management. Their tasks, for example, are to report risks, to suggest measures and to convey viewpoints on the outcome of measures taken previously. Their participation is also important in the framing of the work environment policy and of routines.

Participation

In matters relating to the working environment, the employees are represented by local and regional safety delegates. Pupils are represented by pupil safety delegates. These safety delegates and pupil safety delegates have their appointed roles in work environment management under the Work Environment Act.

It is essential for the employer, employees, safety delegates and pupil safety delegates to decide together how they are to collaborate for the purpose of systematic work environment management. It is often practical to develop the forms of co-operation already existing, such as workplace meetings, project and co-operation groups and safety committee meetings. The minuting of such meetings can serve a useful purpose.

It is important that the persons taking part in work environment management should have sufficient time for their duties and should receive the information they need.

It is essential that work environment management be conducted with reference to the risks of ill-health and accidents and the employees' aptitudes for the work. Accordingly, the employer should draw on their knowledge and experience. Women and men often have different working conditions and different aptitudes for their work. It is important that the employer should be receptive to the employees' viewpoints and pay consideration to possible ways of improving working conditions.

The employer always retains his responsibility for the work environment, but in practice the efficiency of work environment management depends on co-operation.

Guidance on Section 5

Work environment policy

The risks inherent in the activity are an important point of departure when framing the work environment policy. It is important that the policy should be sufficiently concrete to be followed up. For example, it can focus on concrete measures with a view to preventing accidents and enhancing the variety of work.

In a small undertaking, the action plans (Section 10) can serve as a work environment policy.

Routines

Routines, meaning predefined procedures, exist for the purpose of systematizing work environment management. This can avert mistaken decisions.

The routines should indicate when, how and by whom systematic work environment management is to be conducted and which people are to take part. Routines do not have to be complicated. In a small firm, advance planning of the next steps in work environment management may be sufficient. It is particularly important to decide in advance when and how working conditions are to be investigated.

General remarks on written documentation

There is more to systematic work environment management than just drawing up documents. What matters is the practical improvements achieved in the working environment. There is no law requiring a special file or handbook on the subject.

Written documentation is intended as an aid to work environment management, for the use of both employer and employees, and so it is appropriate that they should join together in drawing up the necessary documents.

Risk assessment, summaries of injuries and incidents and action plans always have to be in writing, also in small activities (Sections 8, 9 and 10).

Written documentation of the work environment policy, routines, allocation

of tasks and follow-up of systematic work environment management are not required in activities where there are less than ten persons employed.

Documentation always needs to be adapted to the preconditions and needs of the activity and must be clear and easy to understand. To enable the employees to participate in work environment management, the documentation must be easily available. It also needs to be constantly updated, and the reader must be able to see when it was updated last.

Summary of documentation requirements

Risk assessment, summaries of injuries and incidents and action plans always have to be in writing. (Sections 8, 9 and 10)

Written documentation of the work environment policy, routines, allocation of tasks and follow-up of systematic work environment management is required if there are at least ten persons employed in the activity. (Sections 5, 6 and 11)

When the risks of the work are serious there shall be written instructions for the work. (Sections 7)

Allocation of tasks. Knowledge

Guidance on Section 6

Tasks

The employer always retains his responsibility for the working environment, even if different tasks of work environment management have been distributed.

In a small undertaking it is easy for the employer to make clear who is to do what in connection with systematic work environment management. The employer may also opt for performing tasks himself. In larger undertakings the allocation of tasks primarily concerns managers and supervisory personnel. They carry on work environment management as a natural part of their day-to-day activities, e.g. in connection with decision-making and work supervision, and in their turn can often entrust tasks to other employees.

The tasks need to be allocated to specified persons or positions. It is important that a task should not fall between two stools, be forgotten or be allotted to several persons. It is also important to decide what will apply, for example, during sickness absence and holidays. The tasks should be described as clearly as possible, especially when the activity is a mobile one or is conducted in different places. At any given moment it should be clear to all the employees concerned who is to do what in connection with work environment management.

Powers and resources

Powers concern the right of take decisions and to take action.

Resources are finance, availability of personnel, equipment, facilities, time and knowledge.

If an employee's powers, knowledge or time are insufficient for a task allotted, it is important that he or she should turn to his/her manager and ask for a change to be made. It may become necessary for the employee to resign the task. This can be done quite informally but needs to be expressed clearly and distinctly. If the allocation of tasks is made in writing, it is often important for the employee also to resign the task in writing.

Knowledge

Managers and supervisory personnel have a decisive role to play in creating satisfactory working conditions and preventing ill-health and accidents. To this end, they need to have a thorough knowledge of the work itself, the risks which it entails and measures for the prevention of injuries. It is important for them to have good insight into people's reactions in different situations and to be thoroughly apprised of the health implications of, for example, heavy workload, overtime, victimisation, violence and menaces, and substance abuse. This in turn should make it easier for them to provide necessary support to the employees.

Managers and supervisory personnel need to know the stipulations existing in this field and how to apply them within the activity. Rules with a bearing on the working environment mainly comprise the Work Environment Act, the

Work Environment Ordinance and Provisions issued by the National Board of Occupational Safety and Health and the Work Environment Authority. The Provisions on Systematic Work Environment Management are fundamental, describing as they do how the employer is to approach the working environment. Measures which the employer can take for the prevention of ill-health and accidents are also indicated by other Provisions on the work environment. Collective agreements applying to the activity may also include rules with a bearing on the working environment.

Other rules of importance for the working environment are the Working Hours Act, anti-discrimination enactments, the Equal Opportunities Act and the Tobacco Act. Depending on the nature of the activity, other legislation may also be relevant, e.g. the Electricity Act, the Maritime Safety Act, the Rail Safety Act, the Flammable and Explosive Products Act, the Carriage of Dangerous Goods Act, the Civil Aviation Act, parts of the Environment Code relating to chemical products and biotechnological organisms, the Planning and Building Act, the Rescue Services Act, the Seveso Act and the Traffic Ordinance.

Risks commonly occurring in the working environment are set forth in the Provisions issued by the National Board of Occupational Safety and Health and the Work Environment Authority. Those Provisions refer to physical, psychological and social factors alike. In order for an assessment to be made of the risks present in a particular activity, working conditions there need to be regularly and systematically investigated. Managers and supervisory personnel should have a knowledge of the connection between hazards of the working environment and their potential consequences in the form of ill-health and accidents.

Competence

Tasks to do with systematic work environment management are usually distributed by the employer between managers and supervisory personnel. In order for them to be able to discharge these duties properly, the duties themselves should form a natural part of their work.

Managers and supervisory personnel should be capable of taking measures in keeping with their personnel and work supervision responsibilities, e.g. providing introduction and instructions, elucidating tasks, assisting with the prioritisation of employees' duties and providing support and feedback.

Managers and supervisory personnel should be capable of carrying out investigations of working conditions through one-to-one interviews, personnel meetings and safety inspection tours. In this way it can be ascertained whether working conditions need to be altered. One-to-one interviews should be carried out frequently in order to assess the need for job modification and rehabilitation. Managers and supervisory personnel should be capable of carrying out a preliminary, approximate risk assessment after these interviews and meetings.

As a general rule, managers and supervisory personnel also need to know about other common survey and risk assessment methods.

Allocation of tasks and responsibilities

The employer needs to continuously ascertain that the allocation of tasks is working well and to make changes in the allocation when necessary.

The allocation of tasks does not mean that the person incurring tasks will be automatically punished in the event of a work accident or a work-related illness. Thus it does not mean that the employer can decide who is to be punished, for example, if there is an accident. That liability is decided by a court of law.

If an accident leads to prosecution and court proceedings, the court's assessment can to a great extent hinge on whether the accused had sufficient knowledge, powers and resources for his or her tasks.

The stipulations in Appendix 1 are a transposition of articles in the EC framework directive.

The Provisions of Section 6 and Appendix 1 do not refer to safety delegates.

Guidance on Section 7

General remarks concerning knowledge

The employees can acquire knowledge of the working environment by taking part in special training and by occupying themselves with work environment issues in the course of their work.

Even if the work in itself is not particularly risky, human errors or inappropriate handling can lead to ill-health and accidents, both to the employee herself/himself and to other personnel. If the employee does not feel herself/himself to have sufficient knowledge of the avoidance of ill-health and accidents, it is important that he or she notify the employer to this effect.

Employees need to know what personal protective equipment and what technical aids can be necessary at work. It is important for the employer to devote sufficient time to motivating them to use the equipment and technical aids and for the employees to make use of these things.

Existing knowledge often needs to be supplemented for changes in duties, working equipment, working methods, activities and organisation or after prolonged absence. It is important that the employer should all the time see to it that knowledge is kept up to date.

It is essential for the employees to be informed in good time of alterations planned to the scope, emphasis and organisation of the activity, and that they be given the opportunity of participating in the process of change. This is especially important when cutbacks and closures are pending, so that physical and mental strains at work can be averted.

Risks at work

It is absolutely necessary for the employee to be clear about the risks entailed by his own duties and about things which have to be done for the avoidance of ill-health and accidents. It is also essential to know about other risks which the employee may come up against in the course of work. It is especially important for the employee to have a basic knowledge of the risks at work in places over which her or his own employer has no control, e.g. work involving more than one employer, and teleworking.

Introduction

The employer should introduce the employee to the work as early as possible, especially in cases where the employee has had no previous experience of working life.

The introduction should convey an idea of the employee's own tasks and how they are connected with other people's, an insight into the general scheme of operations and a knowledge of the risks which the activity entails. The introduction should also describe systematic work environment management, e.g. to whom the employee should turn in matters relating to the working environment.

Written instructions

It is important that there should be written instructions on what to do in the event of machine failures, technical hitches, incidents and accidents. Often written instructions are needed for repairs, maintenance and other servicing, and also for difficult situations when working, for example, for clients and patients. It is essential that the instructions should be available at the workplace and that they should be readily intelligible. It is also important that they should be kept up to date and for the reader to be able to see when they were updated last. Written instructions may need to be combined with verbal ones.

The employer should adapt introduction and instructions to the employee's age and experience, familiarity with the task and with working life, knowledge of languages, cultural background and, where applicable, functional impairment. The employer also should make sure that the instructions have been correctly perceived.

Risk assessment, remedial measures and follow-up

Guidance on Section 8

Risks at work

The word risk as used in the Provisions refers to the likelihood of ill-health or accidents at work occurring and the consequences of such occurrences. Risks at work can lead to injury in both the short and long term. The gravity of the risk has to be decided in each particular instance.

Everyday vigilance

It is essential for managers and supervisory personnel in their everyday activities to exercise vigilance concerning the well-being of employees at work. High short-term absenteeism, discontent and relational problems can be signs of risks at work. The employer should be observant of the effects of overtime and heavy workloads, for example.

Survey and risk assessment

Risks at work need to be systematically investigated and assessed. This can be done by means of daily surveys or, for example, through safety inspection tours, work environment inspection tours and other problem inventories. The employer needs to be clear about the risks prevailing, so that ill-health and accidents can be prevented. The frequency with which surveys need to be carried out will depend on the risks which the activity entails. The assessment should always result in the proposal of measures for eliminating or reducing the risks.

The rules issued by the National Board of Occupational Safety and Health and the Swedish Work Environment Authority can supply important information for the mapping and assessment of risks. Failing Provisions for a given sector, the general stipulations of the Work Environment Act apply.

The assessment of risks needs to be undertaken in the light of the general experience present within the activity and the routines applied. It is important to obtain knowledge from summaries of ill-health, accidents and incidents and of previous job modification and rehabilitation measures. Information can be derived from research in the field and from general statistics, e.g. concerning work injuries.

Survey methods

Occupational-hygienic and other measurements, as well as medical checks, may be needed as part of the risk assessment process.

In undertakings with chemical risks or fire or explosion risks, special methods of risk analysis are often necessary. The same goes for activities involving the use of automated or complex machinery.

Questionnaires and interviews can provide a picture of conditions entailing physical and mental strain. Employee interviews are an important means of gaining a clearer picture of conditions.

Risks at work usually come about through a combination of circumstances. It is also essential to consider how human beings function in different working situations. One needs to ask how people react, think, behave and interact with others.

Risky working situations

Repair work, e.g. in connection with disruptions and breakdowns affecting machinery and other technical devices, is often risky. So too are unexpected situations occurring in work with other people, e.g. in nursing and other forms of care.

Risks to employee groups

Minors, immigrants, persons with functional impairment and pregnant women are examples of groups which for various reasons may be exposed to special risks.

Changes to the activity

It is essential to pay consideration to the working environment before the activity has got started, and also when contemplating changes to current operations. It is important to find the risks and remedy them before they get "built into the system".

Personnel can sometimes suffer as a result of re-organization measures, especially where there are cutbacks and closures involved. It is important to identify the risks early on, so that negative consequences of the adjustment process can be averted.

It is essential to pay consideration to the working environment, for example when inviting tenders or signing contracts, in the course of planning and technical design, and in the outsourcing of goods and services. Tenders, for example, can be framed in such a way that the equipment and services provided will meet the stipulations of Provisions issued by the National Board of Occupational Safety and Health and the Swedish Work Environment

Authority. It is also important to verify that the supplier's/contractor's own systematic work environment management is satisfactory.

Written risk assessments

The written risk assessment refers to the risks revealed by the regular surveys and in connection with the planning of changes to the activity. These can very well be co-ordinated with the action plan (Section 10). Risks which are remedied immediately also need to be included in the risk assessment. They constitute important information for continuing systematic work environment management.

Guidance on Section 9

Serious incidents

An incident is an undesired occurrence which could have led to ill-health or an accident. Serious incidents are occurrences which in themselves imply serious danger of ill-health or accidents. There need not be any personal danger in the particular situation, as for example in the case of an explosion on premises where nobody happens to be present.

Incidents are due to deficiencies of work environment management.

Investigation

The duty of investigation applies if there is a connection between what has happened and conditions at work. It may also be worth while for the employer to investigate incidents of a non-serious nature.

An accident, for example, is often the combined product of technical factors, human action, organizational conditions and the direction of the activity. The employer should therefore find out all underlying causes of the occurrence, as far as is practically possible. The investigation needs to be both thorough and systematic. It can contain observations at the work station, interviews with personnel concerned and scrutiny of plans, allocation of tasks, instructions and routines.

The investigation should be focused on the occurrence and on the circumstances which have led to it. It should be carried out with a preventive purpose in mind and should not dwell on the question of blame.

Sickness absence can also be due to ill-health or accidents caused by conditions in the work environment. This makes it important to find out whether the absence is connected with working conditions. A summary of total sickness absence often holds up a mirror to the working environment of the activity concerned.

Annual summaries

The purpose of these summaries is to facilitate the assessment of risks at work, so that new injuries and incidents can be prevented.

It may be appropriate to use the work injury report form when making notes on the subject of ill-health and accidents. Ill-health at work which is not reported as a work injury may also need to be noted down, as may serious incidents. These data may have a very important bearing on the prevention of ill-health later on.

Since women and men can be exposed to different risks at work, it is important to compile separate accounts for the sexes regarding ill-health, accidents and incidents. The account may show that separate measures are called for.

Guidance on Section 10

Remedial measures

When measures are to be taken, the point of departure is the risks of ill-health and accidents which the surveys have revealed. Often one needs to prioritize according to the gravity of the risks. These risks may sometimes be so grave that work has to be suspended immediately.

It is essential for risks to be eliminated or reduced "at source". If a risk cannot be avoided completely, it is important that the employees should be protected in some other way, e.g. through instructions, support and guidance or personal protective equipment.

Different solutions may sometimes need to be tested in order to arrive at suitable measures. Where negative stress and repetitive stress syndrome are concerned, for example, changes can often be necessary in the organization and conduct of education and training, so as to achieve a satisfactory work environment and meaningful, developmental tasks.

Action plans

The measures which are not taken immediately, i.e. on the same day or within the next few days, are noted down in a written action plan or entered in a revised plan. It is often practical for the risks to be entered in conjunction with the remedial measures.

Unremedied risks at work can be a sign of inefficiency in work environment management.

Inspection of measures taken

To make certain that the risks have been dealt with, the employer should check the result immediately, or else as soon as is practically possible. If the measures taken have not been sufficient, they may need to be added to. The new measures in themselves may generate risks and therefore need to be checked.

Guidance on Section 11

Follow-up methodology

The purpose of the annual follow-up is to investigate whether work environment management is being conducted in accordance with the Provisions on Systematic Work Environment Management.

Follow-up may need to be carried out more than once a year, for example following a reorganization and after accidents and serious incidents.

The follow-up can be effectuated by comparing the content of the Provisions and general recommendations with the work environment management that is actually conducted. By interviewing managers, supervisory personnel, other employees and safety delegates, the employer can find out, for example, whether the allocation of tasks is working well.

Occupational health services

Guidance on Section 12

The meaning of occupational health services

Health can be affected by a number and variety – and sometimes a combination – of factors in the working environment. Individual factors can also have a bearing on health. Chap. 3, Section 2b of the Work Environment Act defines occupational health services as an independent expert resource in the domains of the working environment and rehabilitation. It shall have the competence to identify and describe connections between the working environment, organization, productivity and health. Accordingly, occupational health services require a broad knowledge, for example, of work organization, behavioural science, ergonomics, medicine, rehabilitation and technology.

Occupational health services can be outsourced or arranged as an independent part of the activities of the undertaking. It is important that this care should occupy a neutral position in relation to the labour market parties. It is essential that employees and safety delegates should be given the opportunity of participating in the procurement of occupational health services and in decision-making on the structuring and discharge of the assignment. Questions concerning occupational health services are discussed within the safety committee.

Engagement of occupational health services

Occupational health services shall be at the disposal of both employer and employees. To ensure continuity and an all-round assessment of work environment conditions, it is appropriate for these services to be engaged as a coherent resource, not just in the form of occasional services.

The expert knowledge of the occupational health services often necessary both for the investigation and assessment of physical and mental risks and as regards proposing remedial measures and assisting with their implementation. Occupational health services also are an important resource when

rehabilitation inquiries are to be carried out, and in connection with job modification measures for individual employees and groups of employees, e.g. when there are employees who are especially sensitive to risks of the working environment concerned.

If there are particular problems of the working environment involved, it can sometimes be appropriate for the employer to subscribe to occupational health services with specialist competence in the field concerned.

Sometimes resources may be needed which are not available from occupational health services, in which case the employer may need to engage other expert assistance.

It is important that the employer should co-operate with the occupational health services, but she or he always retains her or his responsibility for the working environment.

The stipulations in Appendix 2 are a transposition of articles in Directive 89/391/EEC.

