Emergency plan

CFPA-E Guideline No 25:2010 F

CFPAEUROPE

FOREWORD

The European fire protection associations have decided to produce common guidelines in order to achieve similar interpretation in European countries and to give examples of acceptable solutions, concepts and models. The Confederation of Fire Protection Associations in Europe (CFPA E) has the aim to facilitate and support fire protection activities across Europe/work in European/work in the European countries.

The market imposes new demands for quality and safety. Today, fire protection forms an integral part of a modern strategy for survival and competitiveness.

This guideline is primarily intended for those responsible for safety in companies and organisations. It is also addressed to the rescue services, consultants, safety companies etc so that, in the course of their work, they may be able to help companies and organisations to increase the levels of fire safety.

The proposals within this guideline have been produced by the Finnish National Rescue Association and the author is Jarmo Majamaa from Finland.

This guideline has been compiled by Guidelines Commission and adopted by all fire protection associations in the Confederation of Fire Protection Associations Europe.

These guidelines reflect best practice developed by the countries of CFPA Europe. Where the guidelines and national requirement conflict, national requirements must apply.

Zürich, 1 October 2010   Stockholm, 1 October 2010
CFPA Europe   Guidelines Commission

Dr. Hubert Rüegg   Tommy Arvidsson
Chairman   Chairman

Contents

1 Introduction

Taking care of the safety systems belongs to the daily work of a company or institution. Working consciously in advance on matters of safety instead of learning afterwards from accidents that have occurred can be considered as important as the actual production and other activities carried out on site.

Many accidents and damage are caused by incorrect and careless behaviour of human beings. Therefore, the best way of improving safety systems is to affect peoples' attitudes and behaviour. However, safety does not become a practice by itself without constantly working on it. For a company, in order to get started, an honest and visible commitment of the management for improving the overall safety systems and arranging safe working conditions is needed. Importance of the overall safety and every employee's responsibility for maintaining it can credibly be conveyed by means of managing and organizing.

A company or organisation can improve their own safety systems in many ways. At first it is necessary to be aware of risks associated with the everyday activities. After that it is possible to prevent accidents by different means. Even by doing little things – for example by improving order and cleanliness– a great deal of accidents and damage can be avoided.

At a scene of an accident, individual rescue actions play significant roles. Therefore, preparedness for voluntary action is needed. Much can be saved if – for example – an emergency call can be made without any delay and if the rescue actions can be started as soon as possible even before the professional help from the outside arrives.

2 Scope

The aim of this guideline is to help a company or an institution to be prepared for accidental situations e.g. fire and other accidents. That can be achieved by making a written document – **Emergency Plan**. The document can be used as a part of the business continuity plan. When planning, the organisation needs to decide the order of priority of the accidental situations to be handled. In this guideline, the focus of attention is fire safety.

The emergency plan will advise on how to act if a fire or another accident has taken place. In the plan, all possible internal and external risks should be considered. Assistance from external bodies, such as the fire brigade, police and neighbours, should also be discussed.

In this Guideline, **Institutions** are considered as premises which are used 24 hours a day being:
– Hospitals
– Accommodation premises and dwellings, which are intended for occupants whose changes to evacuate themselves are inferior to the normal because of their reduced physical or mental capabilities. Such occupants are usually elderly people.
– Prisons

European
Guideline

Note: The method of making an emergency plan is also applicable for prisons. However, this guideline does not give advice on how to prevent a prisoner escaping.

3 Contents of an emergency plan

In the emergency plan, the following themes shall be studied:
1. Possible accidental situations and their effects
2. Measures for preventing danger
3. Arrangements for evacuation and sheltering indoors, extinguishing and rescue operations
4. Reserving and training the safety personnel, orienting the rest of the staff or residents to the plan
5. Safety devices
6. Guidelines for possible situations of danger and damage
7. Informing persons concerned of the plan

Furthermore, in an emergency plan for an institution, it the reduced or restricted capabilities of the occupants have to be studied and taken into account when preparing a response for accidents. For this reason, a special "Fire safety assessment" made for these people shall be included in the plan. (see 3.1.3)

3.1   Possible accidental situations and their effects

The basis of the emergency plan is to recognize the risks of the activities of a company. First of all it is necessary to systematically find out what can occur and why. What are the possible consequences? The contents of the emergency plan should then be specified to match the risks identified.

3.1.1   Recognizing and evaluating the risks

In a company, most of the risks are usually known. It is, however, also necessary to find out even those hazards that have not been previously identified because getting properly prepared requires discovering as many risks as possible. Identifying the risks can be carried out by different ways. Useful information can be obtained from internet or from companies and organizations selling, training and consulting for that purpose. Critical attitudes towards the prevailing business safety culture of the company and an open-minded attitude in developing working practices give additional advantage.

3.1.2   Internal risks

Modern machines and equipment are usually safe to use as long as they are properly maintained. In addition, statistics show that the safety level is definitely dependent on the way that people react in their everyday environment. Therefore, it is necessary to find out the risks associated with behaviour of the people concerned. Do they always follow the safety instructions or do they have a habit of taking risks because of being in a hurry or because of some other reason?

Accidents can often be caused by problems in prevailing working conditions. Faults and mistakes in organization and leadership may lead to mistakes, irresponsibility, risk taking and accidents. Such

faults can, for instance, be incomplete safety instructions, tools in bad condition, a safety device with difficult access, untidiness, continuous pressure of work, excessive overtime working and insufficient education or inadequate distribution of information.

In every company and institution there are possible dangerous situations such as accidents, hooliganism, crimes and risks associated with information security, errors in technical or data systems, environmental hazards caused by chemicals in case of emission, leakage, explosion etc.

It is also necessary to study the risks concerning activities of the company outside the actual premises.

3.1.3   Fire risk assessment for institutions

In certain buildings like hospitals, kindergartens, residences for the elderly and prisons, people may not notice danger early enough or are not able to rescue themselves. Therefore, when drafting the emergency plan, it is necessary to investigate separately how the inability of the residents will be taken into account in getting prepared for accidental situations. Thus, for planning and maintaining the fire safety in institutions, a fire risk assessment shall be made as a part of the emergency plan. For making the fire risk assessment, assistance can be obtained from the CFPA-E release "European Guideline No 6 – Fire Safety in Residential homes for the elderly".

3.1.4   External risks

A company or an institution may also encounter danger because of reasons which are not dependent on its own activities. Such reasons can exist because of the location of the premises or dangerous activities in the neighbourhood. In this respect, co-operation with the local fire and rescue authority which knows the risks of the area is recommended.

Typical threats can be: large fires, chemical accidents; pipeline accidents, traffic accidents on busy highways or traffic routes and at the bus and railway stations. Accident or danger can also be caused by criminal activities, hooliganism, arson or sabotage. A Break in electricity, in water supply or in heating may also cause unexpected situations as well as a flood, storm or other force of nature.

In the emergency plan, a company or an institution gives a summary of the identified risks to be prevented and controlled by active measures.

3.2   Measures of preventing dangers: safety culture

After identifying the risks it is necessary to plan how the factors affecting the safety systems can be eliminated or controlled and how the consequences of accidents can be decreased. Necessary measures to be taken shall be listed in the emergency plan.

Preventing dangerous threats needs a good safety culture. This means a positive attitude to everything concerning the safety systems in the workplace and working in accordance with these.

European
Guideline

A good safety culture requires regular voluntary controls e.g. fire inspections. Responsibilities of the personnel for carrying out control actions shall be specified and recorded in a written document.

Safe human behaviour can be motivated by arranging good working conditions. That will decrease the possibility of human errors. This includes good process planning, safe machines, active maintenance, cleanliness and order, information, education etc. Encouraging the personnel to participate in all this pays well.

Increasing the safety level is also possible by means of technical arrangements. The basis of the constructional safety arrangements should be understood by the users of the building in their daily activities. It is important to be conscious of the need to maintain fire compartments, the importance of shutting the fire doors, the danger of arson and the reasons for safety requirements during repair work.

Arson accounts for at least one third of building fires in many modern countries. The threat of arson can be reduced by order and cleanliness, careful and safe storing of chemicals and other goods, safe location of waste materials and by crime prevention, such as guarding and access control.

In connection with repair and modification work, the safety of hot work has to be particularly considered. Hot work is defined as work which generates sparking and in which a flame or other source of heat is used, which causes danger of fire. Hot work includes e.g. gas and arc welding, abrasive cutting, grinding of metals and hot-air blasting.

Companies and institutions need permanent guidelines for carrying out hot work in a safe way. Such a guideline may be called "The Control Plan for Hot Work" and it shall be included in the Emergency Plan. See the CFPA Guideline number 12.

Work safety, preparedness for first aid and maintenance of the premises belong to a good safety culture as well in the prevention of accidents.

3.3 Arrangements for evacuation and sheltering indoors, extinguishing and rescue operations

3.3.1 Arrangements for evacuation

A company or an institution needs a proper plan for the evacuation of personnel, customers and /or patients in the event of an accident. In the Emergency plan it shall be determined who will make the decision to evacuate, how the decision will be announced to people in danger, how the personnel will act, where the evacuation routes are located, how well the routes can transfer people and where the people shall come together after evacuation. In many densely populated urban areas, location of the meeting place has to be planned very carefully.

People have to be safely evacuated from a building as soon as possible in case of fire. Escape routes should primarily lead out of the building to a safe place or secondarily to another fire

compartment. The personnel must take care of rescuing or guiding customers out of the building. There are only 2 to 3 minutes – in some cases even less – to escape from a room where a fire has started. The fire brigade cannot arrive and enter the room in such a short time.

For warning of danger, an internal fire alarm system has to be planned. Warning of danger must be transmitted quickly to all people in a building or during an outdoor public occasion. Different methods may be used as a means of informing of danger; these include fire bells, announcing and telephone calls to selected persons in charge.

Exits and routes leading to them have to be continuously passable and visibly marked. Exit routes have to be marked densely enough and the exit lighting has to be kept in working order.

The doors of exits and of areas leading to the exits must allow opening them from the inside without a key. Nothing shall be stored on exit routes – not even temporarily – and nothing shall be stored by the exit door.

In public places, instructions for evacuation shall be displayed in view of personnel and customers. Exit arrangements for an outdoor public occasion can be communicated to the public by means of plans and announcements.

Guidance to an exit shall be prepared separately for each working place. Information on actions to be undertaken before leaving the building, (e.g. turning off machines) and information on the exit routes to be used shall be given.

The members of staff also need to know how to fight a fire, raise the alarm, call the fire brigade and guide the firemen to the scene of the incident. The best way to learn these skills is to arrange evacuation exercises. These exercises also give the essential feed-back info about the functionality and sufficiency of the guidelines.

3.3.2   *Extinguishing and rescuing*

For extinguishing and rescuing, equipment is needed and the personnel need to be trained its use.

It has to be determined with the rescue authority how soon external help can be received and what kind of rescue equipment the fire brigade uses. The target area has to be arranged in such a way that the fire engines can get close to the building, in other words the emergency access roads have to be marked and they have to be passable.

3.3.3   *Maintenance of safety equipments*

Arrangements for maintaining the safety equipment and keeping a list of names of persons responsible for the maintenance shall be noted in the emergency plan. For extinguishing and evacuating there are many kinds of equipment such as portable extinguishers, automatic extinguishing systems, automatic fire alarms, smoke alarms, smoke exhaust arrangements, alarm systems, exit route signs and safety marking.

Necessary actions of maintenance and inspection for such equipments are explained in manufacturer's instructions. Instructions for safety equipment shall be stored in a place where

they can be available for all those who need them. In some countries, maintenance of some safety equipments may have been regulated nationally.

3.3.4   Sheltering indoors

In getting prepared for chemical accidents it is necessary to identify possibilities of indoors sheltering and actions needed for it.

3.4   Reserving and training the safety personnel and familiarizing the others to the plan

3.4.1   Safety personnel

Persons responsible for safety systems shall be nominated and their names shall be listed in the emergency plan.

The top management of a company or an institution shall control the legality of the safety arrangements. The management shall give guidance by setting goals, giving necessary resources and controlling the implementation.

A person responsible for the overall safety systems and a substitute person for him/her shall be nominated by the company or the institution. The nominated person may be called Safety Manager (or Safety Chief).

The nominated persons shall have adequate skills. They shall be given training, time, financial resources and a mandate to make fast decisions about actions needed in accidental situations. A Person responsible for safety systems shall also be nominated for outdoor public occasions and for other activities outside the actual premises of the company if such occasions and activities exist.

3.4.2   Safety manager

In a company or an institution, a Safety Manager shall be in charge of:
–   Managing, developing and maintaining safety systems and rescue service
–   Implementation of safety systems according to national regulations
–   Preparing and updating the emergency plan
–   Safety training of the personnel
–   Making necessary announcements to the authority
–   Participating in the inspections by the authority
–   Informing the top management about safety systems

In addition to the above mentioned nominated persons in charge of the overall safety systems, "persons for safety control" for different sections, parts or areas of a company or an institution shall be nominated.

3.4.3   Safety control person

A safety control person shall be in charge of:
–   Controlling the safety systems in his/her domain
–   Transmitting updated safety instructions to the work place

– Ensuring availability of the safety instructions for everyone in the working area in an accidental situation
– Extinguishing and rescuing in case of fire
– Ensuring shutting of doors and windows and turning off machines and equipment in accidental situations
– Informing the safety management and the rescue authority in an accidental situation

A company or an institution may also need a fire extinguishing team or people trained for fighting other threats.

3.4.4   Safety training

In the emergency plan, a record of safety training for the safety personnel and the whole staff shall be kept. It shall be identified in the plan, when, of which subject, and to whom the training will be given.

Training for prevention of fire and other accidents shall be arranged for the whole staff and for the safety control persons. Every employee has to know the threats related to working and how to prevent accidents at the own work place. It is also important for everyone to know and understand the technical and structural safety arrangements so that nobody could cause accidents because of ignorance, for instance by wedging a fire door in the open position or by blocking exit routes. New and temporary employees shall be given safety training in conjunction with orientation to work and with work guidance.

In addition, employees have to be acquainted with instructions prepared for accidental situations.

Training and exercises shall be arranged at least in the following subjects:
– Different means of alarming for help and making an emergency call
– Using extinguishers
– Using the fire alarm push button
– Escaping, rescuing
– First aid

In every department and section of a company or an institution there must be employees with the ability to extinguish fires, rescue personnel and give first aid.

3.5 Safety devices

In an accidental situation damage has to be limited quickly and effectively. For this purpose it is necessary to provide a company or an institution with rescue equipment.

Depending on the specified need, a company may need different safety devices such as first aid packages, safety masks, safety clothing, helmets, gloves, glasses, flashlights and batteries, iodine pills, blankets, etc. and guidebooks.

European
Guideline

3.6 Guidelines for possible accidental situations

In chapter 1, elements for determining the possible accidental situations in a company and an institute were given. For every discovered situation like that, simple and feasible guidelines have to be made.

Guidelines for a company and an institute shall, if necessary, be applicable in every work place. Every employee has to know what to do in an accidental situation. Instructions have to be easily available. Instructions have also to be made to serve the situation after the actual rescue operation.

3.7 Informing persons concerned of the plan

Subjects related to the emergency plan shall be passed to the personnel in conjunction with regular safety training. New employees shall receive training appropriate for their specified tasks.

For customers and audiences it has to be planned how the information on safety instructions will reach them. In storehouses, theatres and other assembly halls the safety instructions can be placed on information tables by the entrances. In addition, the visibility and sufficiency of the safety signs have to be ensured. In public occasions the safety instructions can also be announced or delivered to entering people and ensured by visible signs. In activities outside the premises, the dangers and safety instructions shall be informed to the people concerned in advance.

4 Example of an emergency plan

In this chapter, subjects to be presented in an emergency plan have been listed as an example; the list can be used as a basis to be modified according to each individual need.

As a necessary background documentation of the plan, some general information of the premises, aim of the plan, acceptance and updating of the plan and connections to the rescue services shall be given as follows:

Premises:
– Name of company or institution, contact information
– Field of activity and a short description of the activity
– General description of the buildings: floor area, number of storeys, fire compartments, year of construction, building materials (concrete/steel/brick/wood)
– Number of persons (personnel and customers)
    o by storey/by department/by working shift in different time of day
    o how many people to be rescued in an emergency?
– Shall the activities be carried on in spite of unusual conditions?
– Is the building classified as an important target by the national defence authority?
– Interrupting the activity: time and personnel needed for interruption? Are there activities that may not be interrupted?
– Services bought from the outside which are necessary for running the activities
– Insurance

Aim:
– Short description of the aim of the plan
– Connection to all the other safety planning in the company
– Do there already exist other plans associated with safety arrangements, such as the fire risk assessment?
– Is this plan a part of another plan?

Acceptance and updating the plan:
– Date and signature of the acceptor
– Determining the interval of updating
– Evaluation method of the plan, intervals of evaluations
– Responsibility of updating, the last checking date

Connections to the rescue services:
– Resources of the fire brigade for the target (response time, personnel and equipment) shall be determined with the fire brigade
– Free routes for the rescue service vehicles and possibilities to operate at the target area (emergency access road, turning places for the vehicles, fire fighting water points)

4.1 Possible dangerous situations and their effects

For anticipated dangerous situations determined by a risk analysis and which have to be responded by following the emergency plan, a summary shall be made. Dangerous situations and danger causing subjects are e.g. building fires, accidents, use and storing of chemicals, technical failures, crimes, information security.

4.2 Measures for preventing danger

A summary of the report of measures for preventing dangerous situations and of arrangements to be considered in the premises is presented in the following.

4.2.1 Fire safety

– Fire resistance time of fire-separating building elements
  o Fire doors
  o Ducts

– Cleanliness and order
  o garbage disposal
  o smoking, burning of candles and open fire
  o attics and cellars
  o storing of flammable liquids and gases
  o use and condition of electrical equipments and fittings
  o fire safety of furniture and fittings
  o electric heaters
  o places for charging forklift trucks

– Prevention of arson
– Control plan of hot work
– Instructions for everyday fire safety
– Instructions for self-managed fire inspection

4.2.2 Electrical safety

– Service and maintenance program for the electrical equipment
– Regular inspections for electrical equipment carried out by specialists
– Interval of inspections
– Instructions for self-managed checking of the condition of electric fittings and electrical equipment

4.2.3 Dangerous chemicals

– Quantity of substances for storing, usage and transporting
– Description of process
– Information on safety of use (handouts)
– Inspections by the specialists or the officials and given permissions
– Environmental safety
– Dangerous transportations in the near-by area

4.2.4 Other hazardous substances

– Biological substances or substances causing danger by pressure, temperature or by other means

4.2.5 Work safety and preparedness for first aid

– A short report of work safety arrangements
    o suitable parts of work safety program, instructions for prevention of employment accidents
– Report of first aid arrangements

4.2.6 Crime prevention

Subjects causing danger: hooliganism, violence, burglary, arson, threat of bombing, terrorism
– Structural protection: locking, protection of doors and windows, fencing, lighting etc.
– Technical protection: alarm and control systems etc.
– Functional protection: access control, guarding, controlling the use of keys etc.

4.2.7 Information security

– Can an accident or damage be a consequence of an error in data systems?
– Securing of data (handling, distributing, storing, deleting)
– Handling of personal data (personal data securing)
– Data security (e-mail, using of internet and data networks, telephone and fax)
– Virus protection
– Securig the continuance of activity (backup of instructions, programs, information, data files).

4.2.8   Environmental risks

–   Environmental risks caused by the activity
–   Environmental risks caused by accidents or errors
–   Permission procedures and licence conditions
–   Noise control and landscape protection
–   External environmental risks affecting the activity, personnel and premises
–   weather conditions, floods, dangerous gases, other dangerous chemicals, radiation…

4.2.9   Maintenance of the real estate

–   Maintenance arrangements of the premises and the production equipment
–   Distribution of electricity and reserve power, regular inspecting of the electrical installations
–   Heating devices and systems
–   Equipment for water supply and drainage, main closing cocks, prevention of leakage, reserve water supply
–   Other technical equipment, networks, closures, regular inspections
–   Air conditioning, location of the engine room and control mechanism, emergency stop, inspection and cleaning of the ventilating ducts
–   Chimney-sweeping
–   Garbage disposal and hazardous waste
–   Elevators
–   Visibility of eddress markings

4.3 Arrangements for evacuation and sheltering indoors, extinguishing and rescue operations

4.3.1   Internal alarm arrangements

–   By what means can information of a danger be delivered to everybody? For whom or where shall the information be given? How can the person who makes the decision of rescuing activities receive the information?
   o   who shall make the alarm, how to raise the alarm?
–   Which persons shall be alerted (e.g. the management, safety manager, specialists of running the activities, processes, machines and equipments)?
   o   easy to reach a person? Contact information?
   o   who shall raise the alarm? How to raise the alarm?
–   Fire alarm exercises.

4.3.2   Evacuation of people

–   How shall the staff and other people exit the building in emergency?
–   Responsibility of the staff for the evacuation safety
–   Practical measures in every work place, e.g.
   o   who shall help/direct the customers out and how
   o   what must be checked/done at the moment of leaving and who shall do what?
   o   which emergency exits shall be used by the persons of each working place?
–   Where is the appointed assembly area outside the building?

– Escape routes
– Plan of escape routes, safety information boards
– Safety signs of escape routes

4.3.3   Fire safety equipment

Service personnel of the equipment, inspections, maintaining and testing, place of directed alarms (own control room, Security Company, fire brigade etc.)
– smoke alarm
– smoke alarm system
– automatic fire alarm system
– automatic fire extinguishing system (sprinklers, water mist, gas…)
– marking and lighting of exit routes
– automatic fire doors provided with smoke sensors
– smoke ventilation

4.3.4   Sheltering

General instructions for sheltering indoors are presented in chapter 4.6.2.5 "Actions during public warning signal"

4.4   Reserving and training the safety personnel, familiarizing the others to the plan

4.4.1   Safety personnel

– Names of persons, contact information (to be also available off-duty, if necessary), sphere of responsibilities in safety work, safety training
– Names of persons of the steering group
– Safety manager with his/her substitute person, safety controllers, persons trained to safety work (first aid, extinguishing etc.), maintenance person and his/her substitute.

4.4.2   Safety training

– A person responsible for informing the personnel, familiarizing and training
– Training aiming at prevention of accidents (what training and how often?)
– Training concerning action in emergency (what training, how often, exercises)
– Training of persons nominated for safety work
– Exercises in co-operation with the fire brigade?

4.4.3   Safety devices

What kind of safety devices have been purchased, what quantities, where are they stored, the marking of the storing place, inspection and maintenance of portable extinguishers.

– First aid equipment
– Fire extinguishing equipment (portable extinguishers, fire blankets, fire hose reel
– Equipment needed for rescuing and sheltering
– Equipment needed in specified danger situations

European
Guideline

4.5 Guidelines for possible accidental situations

Instructions for possible dangerous situations (see chap. 1) may be listed here. Instructions for each company or institution and also relevant working place oriented instructions shall be made.

4.5.1   General instructions in case of accidents

4.5.1.1 Emergency call
– Arrangements for making an emergency call
    o Telephones, emergency dial numbers, emergency push buttons
    o Instructions for making an emergency call

4.5.1.2 Informing in an accidental situation
– What shall be informed, when, to whom, in which order, who shall inform?
    o To which officials (police, environmental or social authority etc.)
    o To others (relatives, people in the nearby area, insurance company, media)
    o How to inform? Contact information?

4.5.1.3 Recovery from an accident
– Loss prevention
– Arranging support for the mental recovery of the victims on the site of accident by means of psychological aid (organizations such as The Red Cross, churches etc.)
– Arranging replacement of the premises, systems and methods
– Making the situation normal again
– Evaluation of damages, repair of the damaged premises
– Informing of the accident (who by, to whom: relatives, media, authority…)
– Conversations at the work place, therapy
– Reporting of occurred damages and investigation of causes of the accident

4.5.2   Instructions for actions in different kinds of accidents

Examples:

4.5.2.1 Fire
– Rescuing people
– Calling the fire brigade
– First-aid extinguishing
– Evacuating the building
– Guiding the fire brigade

4.5.2.2 Accident other than fire
– Calling the ambulance
– Recovery measures
– Stopping bleeding

4.5.2.3 Crime

– Description of the criminal
– Reporting to the safety/security management
– Reporting to the police
– Evacuating the building in a bomb threat

4.5.2.4 Chemical accident

– Sheltering indoors
– Stopping the air-conditioning
– Listening to information and instructions given on the radio

4.5.2.5 Public warning signal

– Sheltering indoors
– Stopping the air-conditioning
– Listening to information and instructions given on the radio
– Avoiding the use of telephone

4.5.2.6 Radiation

– Sheltering indoors
– Tightening the premises
– Iodine tablets
– Reserving and sheltering of foodstuffs and beverage
– Safety clothing when going out
– Sheltering of goods outside the buildings
– Measuring the radiation
– Preparation the places for cleaning

4.5.2.7 Break of electricity, water and heating

– Reserve systems
– Closing cocks
– Starting the repair work
– Reporting

4.5.2.8 Damaging of the data system

– Backup systems

4.5.2.9 Informing of the plan to people concerned

– Informing the customers and audience
– Exit signs, safety signs, safety instructions for the customers, announcements etc.

5 Planning procedure

In making an emergency plan, the following procedure can be used:

1. The company management nominates persons responsible for safety systems (safety manager and/or safety chief) to take care of practical safety work.

2. The writer of the plan shall be appointed (for instance the safety manager and/or an external specialist), the schedule of drafting of the plan shall be decided.

3. The other safety personnel of the company shall be appointed.

4. Determining the risks of the company or institute. Contribution of the company's own specialized personnel shall be used and, if needed, an external specialist of risk analysis shall be hired.

5. Deciding on the contents of the emergency plan (= which risks to get prepared for?) and the form (a paper version or using a computer).

6. Making instructions for prevention of damage and accidental situations. Beginning of implementing the prevention activities.

7. Planning of instructions for the case of accidents.

8. Distributing instructions on prevention and action to employees in all working places. The instructions shall be both common and work place oriented.

9. Checking the sufficiency of necessary safety devices needed in safety work.

10. Planning and implementing the safety training of the personnel and persons nominated in safety work.

11. Arranging of co-operation with the authority and neighbours.

12. The company management approves the finished plan. A summary of the plan may be forwarded to the local rescue official.

13. Functionality of the plan shall be checked on a regular basis and shall be updated when necessary, with a time interval not exceeding one year.

6 Enclosures

In an emergency plan, the following documents shall be enclosed:

Construction plan with the relevant safety information:
General layout, in which the following safety information shall be included:
– Access possibilities for the fire engines in the yard (gates, turning points, emergency access roads)
– Location of fire fighting water
– Assembly areas
– Plan for drainage network in the premises

Floor plans with the following safety information:
– Locations of equipment for extinguishing, rescuing and first aid
– Exit passageways and emergency exits
– Elevators
– Automatic safety equipment (such as fire alarm systems, fire alarms, cameras and access control)
– Fire alarm callpoints and corridor telephones
– Fire compartments, fire doors
– Fire resistance time of constructions
– Main closings of water and gas, main switches of electricity, stopping of air-conditioning
– Reserve power equipment
– Emergency operations centre

In the construction plan, indications of vulnerable and danger causing premises shall also be included, such as:
– Storages of flammable liquids, liquefied gas or explosives, their places of use and indication of quantity
– Storages and quantities of dangerous chemicals to health or environment
– Equipment and systems for the use of dangerous chemicals such as equipment for liquefied gas and closing valves
– Equipment for data communication and other vitally important machines and devices

7 European guidelines

Guideline No   1:2002 F - Internal fire protection control
Guideline No   2:2007 F - Panic & emergency exit devices
Guideline No   3:2011 F - Certification of thermographers
Guideline No   4:2010 F - Introduction to qualitative fire risk assessment
Guideline No   5:2003 F - Guidance signs, emergency lighting and general lighting
Guideline No   6:2004 F - Fire safety in residential homes for the elderly
Guideline No   7:2011 F - Safety distance between waste containers and buildings
Guideline No   8:2004 F - Preventing arson – information to young people
Guideline No   9:2005 F - Fire safety in restaurants
Guideline No 10:2008 F - Smoke alarms in the home
Guideline No 11:2005 F - Recommended numbers of fire protection trained staff
Guideline No 12:2006 F - Fire safety basics for hot work operatives
Guideline No 13:2006 F - Fire protection documentation
Guideline No 14:2007 F - Fire protection in information technology facilities
Guideline No 15:2010 F - Fire safety in guest harbours and marinas
Guideline No 16:2008 F - Fire protection in offices
Guideline No 17:2008 F - Fire safety in farm buildings
Guideline No 18:2008 F - Fire protection on chemical manufacturing sites
Guideline No 19:2009 F - Fire safety engineering concerning evacuation from buildings
Guideline No 20:2009 F - Fire safety in camping sites
Guideline No 21:2009 F - Fire prevention on construction sites
Guideline No 22:2010 F - Wind turbines – Fire protection guideline
Guideline No 23:2010 F - Securing the operational readiness of fire control system
Guideline No 24:2010 F - Fire safe homes
Guideline No 25:2010 F - Emergency plan
Guideline No 26:2010 F - Fire protection of temporary buildings on construction sites
Guideline No 25:2010 F - Emergency plan
Guideline No 26:2010 F - Fire protection of temporary buildings on construction sites