Fact-sheet – How to be prepared to react in case of fire incident?

What is the objective?

Why factories should be prepared to react in case of fire incident? The factory should be prepared to react in case of fire incident to first ensure the safety of workers, protect property and second to avoid the spreading of the fire.

Before being able to react in case of fire emergency, the factory should have implemented a system to systematically ensure managers and workers know what to do in case of fire. The system should include:

a. **Identification** of risks of fire in the factory[1];

b. **Creation and review** of internal fire emergency policies and procedures;

c. **Implementation** of on-site policies and procedures;

d. **Training** of workers and key workers ;

e. **Assessment** of the knowledge of all workers;

f. **Conduction of internal audits/inspections** to control the implementation of the policies and procedures.

Then, to react in case of fire, the factory should implement **on-site measures** identified during the risk assessment and should ensure those measures are well **maintained**.

[1] See Social_Factsheet_Health & Safety_Efficient risk assessment, internal audits & inspections

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How to achieve the objective?

1. Factory's internal system to react in case of fire

Step 0: Main manager

- **Appoint a senior manager** in the facility to be in charge of the fire safety. The main responsibilities of the appointed manager are to:
- Create all necessary policies and procedures;
- Ensure the full implementation of those policies and procedures;
- Follow up of the factory's fire safety performance.

Step 1: Fire safety procedure and policies

- **Write** a fire evacuation plot plan / escape plan and have it posted on every floor of the facility including: pathways and exit direction, exit doors location, assembly point, fire equipment location, caption and accurate location (e.g., caption saying 'you are here').

Prevention of fire risks, response and evacuation in case of fire, report of fire incident, training (for all workers on general fire safety topics and for specific workers on fire fighting and evacuation support) and assessment of workers' knowledge.

Step 2: On-site implementation

- **Post** emergency contact number on every floor including local fire marshal, hospital, emergency hotline, and/or policy station;
- **Identify** the pathway, exit directions, emergency exits and lit the emergency routes. Isolate emergency exit stairs from flammable materials;
- **Equip** the building with appropriate fire protection and fighting equipment as per local regulation, international standards, etc.

Step 3: Internal inspections and maintenance

- **Create** procedure on internal regular inspections and maintenance of fire protection and fighting equipment and the clearance and visibility of evacuation routes. This procedure should define:
- Responsible person(s) in charge of the inspections;
- Frequency of the inspection and maintenance (a template should be created to report them);
- Record inspections and maintenances (report failures to top management to reinforce the training and provide actions to avoid failures);
- Analyze entire inspections records at least during the risk assessment annual review.

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2. Factory's training and assessment of workers and key appointed workers

Step 1

- **Train** workers on fire emergency and response (all workers and key workers such as the fire response team);
- Training should be done on a regular basis (as per law, as per factory procedure or at least once per year);
- All workers should be trained on the fire emergency procedure;
- All key workers should be trained on notification of workers in event of fire or emergency, reporting fire or emergency to local authority, use of fire extinguishers and other firefighting equipment, evacuation procedures, etc;
- The training should be properly documented with at least the training content/material, training record and attendance sheet.

Step 2

- **Assess** the knowledge of the workers by conducting emergency drills;
- Emergency drills should be conducted on a regular basis (as per law, as per factory procedure or at least once per year);
- All workers and all shifts should be covered by the drill (night and day shift);
- Key workers should have a specific assessment to ensure they are prepared to support in case of fire;
- The assessment should be properly documented with the date, announcement type, number of participants, and evacuation time.

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3. Fire protection and fighting equipment

- *Detection of the fire and notification of workers*

Equipment	System	Comment	Requirements
Fire alarm system	Automatic	Automatic fire alarms are connected to smoke detectors, heat detectors, flame detectors, carbon monoxide detectors or flammable gas detectors according to the characteristics of the fire. In the event of a fire, the fire alarm will be automatically activated.	A fire alarm system should be: - Available on every floor - Clearly designated and visible - Not obstructed - Compliant with the law The fire bell should be different from the lunch / break bell and **audible** in every area. The fire alarm system should be **centralized**. **Notification light** should be visible in areas where noise levels are above ambient. The factory should ensure that its fire alarms are **inspected**, **tested** and **maintained** according to local law.
	Manual	Manual fire alarms are activated with devices such as manual call points or pull stations. In the event of a fire, a worker should manually ring the bell.	

Detector	Manual activation	Bell	Notification light
			

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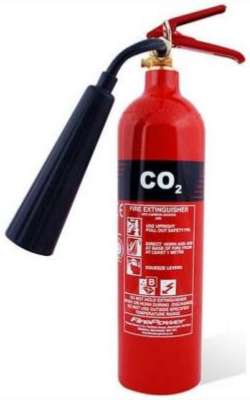
- *Firefighting equipment*

- **Fire extinguisher**

Equipment	Comment	Requirements
Fire extinguishers	A fire extinguisher is a fire protection device used to extinguish a fire in order to avoid the spread of small fire or to create a path to safety. There are different types of fire extinguishers (water type, foam spray, ABC powder, etc.) categorized according to the type of fire to extinguish: - Wood, paper and textile - Flammable liquids - Flammable gases - Electrical equipment - Cooking oil	Fire extinguishers should be: - Available in sufficient number on every floor ; - Along the emergency exit path; - Clearly designated and visible; - Not obstructed and always easily accessible. The **type of fire** extinguisher used should respect the legal requirements. Fire extinguishers should be **inspected:** - Internally on regular basis as per law (it is recommended to inspect them on monthly basis); - Externally by specialized companies on regular basis as per law (it is recommended to inspect them at least on yearly basis).

Water type	**Dry powder**	**Foam**	**CO_2**	**Wet chemical**
				
For wood, paper and textile	For wood, paper and textile, flammable liquids, flammable gases and electrical equipment	For wood, paper and textile and flammable liquids	For flammable liquids and electrical equipment	For wood, paper and textile and cooking oil

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- **Fire hydrant / hose pipe and sprinkler**

Equipment	Comment	Requirements
Fire hydrant / hose pipe	Fire hydrant / hose pipe and sprinkler are devices installed in certain buildings and structures depending on the local requirements and are used to extinguish a fire with high pressure water. These systems are generally connected to a water supply. Fire hydrant / hose pipe is a manual device to be used by trained personnel while sprinklers are automatically triggered when a seal in the sprinkler head ruptures (at a pre-established temperature).	Fire hydrant / hose pipe and sprinkler should be: - Available in sufficient number on every floor; - Clearly designated and visible; - Not obstructed and easily accessible. Both the device type and design should comply with local requirements. A private or municipal water source should be provided to be able to continuously supply the fire hydrants / hose pipes and sprinklers with water. The fire hydrants / hose pipes and sprinklers should be inspected and maintained **internally** and **externally** by a specialized company.
Sprinkler		

Fire hydrant	Fire hose	Sprinkler
		

4. <u>Testing, Inspection and maintenance of fire equipment</u>

The facility should follow the requirements for the **internal** and **external** testing, inspection and maintenance of fire equipment. The facility should have an internal system to test, inspect and maintain the equipment including:

- **Procedure** defining testing, inspection and maintenance **process** ;
- **Resources** to perform internal tests, inspections and maintenance ;
- **Training** of the responsible person(s) in charge ;
- **Records** of tests[2], inspections and maintenance (example: inspection tags (available on-site or off-site) and the inspection schedule, etc.)

Equipment	Recommended frequency for internal inspection
Fire extinguisher	Monthly
Fire hydrant / hose pipe and sprinkler	Quarterly
Fire detectors	Monthly
Fire alarm	Monthly

[2] The factory can test internally on a regular basis fire hose, exit sign, emergency light, alarm, detector, etc.

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- Example; How to check a fire extinguisher and how to record it?
  - **Check to do**
    - Locking pin is in place and secured?
    - Well cared?
    - Properly charged?
    - Hose not damaged?
    - Hanger is fastened?
    - Inspection date?
    - Accessibility (is it blocked / obstructed, etc.)?
  - **Record of check**
    - Date?
    - Who has conducted the check?
    - What was checked?
    - Actions to implement + responsible in charge and date

Common non-compliances

Non-compliance	Comment
Workers are not properly trained and do not know how to use the fire equipment	- Despite training performed on the usage of fire extinguisher (record available, certified trainer), the trained worker does not demonstrate appropriate knowledge on how to use fire extinguisher (the worker did not know that the pin should be pulled before). - During the test of a CO2 extinguisher, the worker shook the extinguisher before using it. In the unlikely event of a fire, emergency personnel should be able to act and use the fire extinguisher for the safety of workers.
Internal inspection system is not efficient or properly implemented	- During the site visit, each extinguisher holds a checking card that indicates it is controlled monthly. But the auditor detects the pressure is very low. - During the document review, even though it is found that inspection records are kept and that the factory conducts internal inspections on a monthly basis, several leaks were observed on the pipe and at joint valve. All equipment should be functional in case of a fire and the factory should ensure that the internal inspection system is efficient. Those two examples demonstrate the lack of efficient control and maintenance process that increase the risk in case of fire.

Good practices

- Conduct more regular inspections than the required frequency defined in the law.
- The factory has provided additional fire equipment not required to be installed as per law (for example, sprinklers are installed in a factory where the building structure does not require this installation).
- Request a qualified external company to provide specific training on fire risk and fire safety to workers on regular basis.