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Fire Safety – Industry Perspective

“Planning is the key to survival”



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Everyday News on Destruction due to Fire



Do you remember these incidents?



Fire engulfs Mumbai's seat of p





SCOPE

- Hazard Identification and Risk Assessment
- Fire Risk Assessment
- Emergency Preparedness
- Some Issues for Consideration

Disaster due to Fire is a sudden, calamitous event bringing great damage, loss, destruction and devastation to life, property and environment.



Fire Threat Perception

We must brainstorm the worst case scenario.

We must ask ourselves.....



What would we do if the worst happened?

What if fire broke out in the boiler room?

What if fire broke out at night?

What if fire broke out in the main office?

STEPS IN HAZARD IDENTIFICATION AND RISK ASSESSMENT

Elimination

Substitution

Engineering controls

Administrative controls

Protective equipment

Summary Risk Management

Identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

1. Hazard Identification

2. Risk Evaluation

3. Setting Control

4. Optimize risk

Risk Ranking Matrix

Severity	5	High Risk	High Risk	Extremely High Risk	Extremely High Risk	Extremely High Risk
	4	High Risk	High Risk	High Risk	Extremely High Risk	Extremely High Risk
	3	Low Risk	Low Risk	Medium Risk	Medium Risk	Extremely High Risk
	2	Low Risk	Low Risk	Medium Risk	Medium Risk	Medium Risk
	1	Low Risk	Low Risk	Low Risk	Low Risk	Low Risk
		1	2	3	4	5
		Likelihood				

A firefighter in a red jacket is using a fire extinguisher. The scene is brightly lit, likely from the fire being extinguished. The firefighter's face is partially visible, and they are holding the extinguisher with both hands. The background is a mix of red and white, suggesting a fire scene.

Emergency Preparedness For Fire

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Potential Fire Emergencies



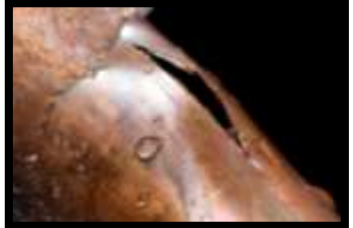
Slow isolated fires



Fast spreading fires



Explosions



Bursting of pipelines/ vessels



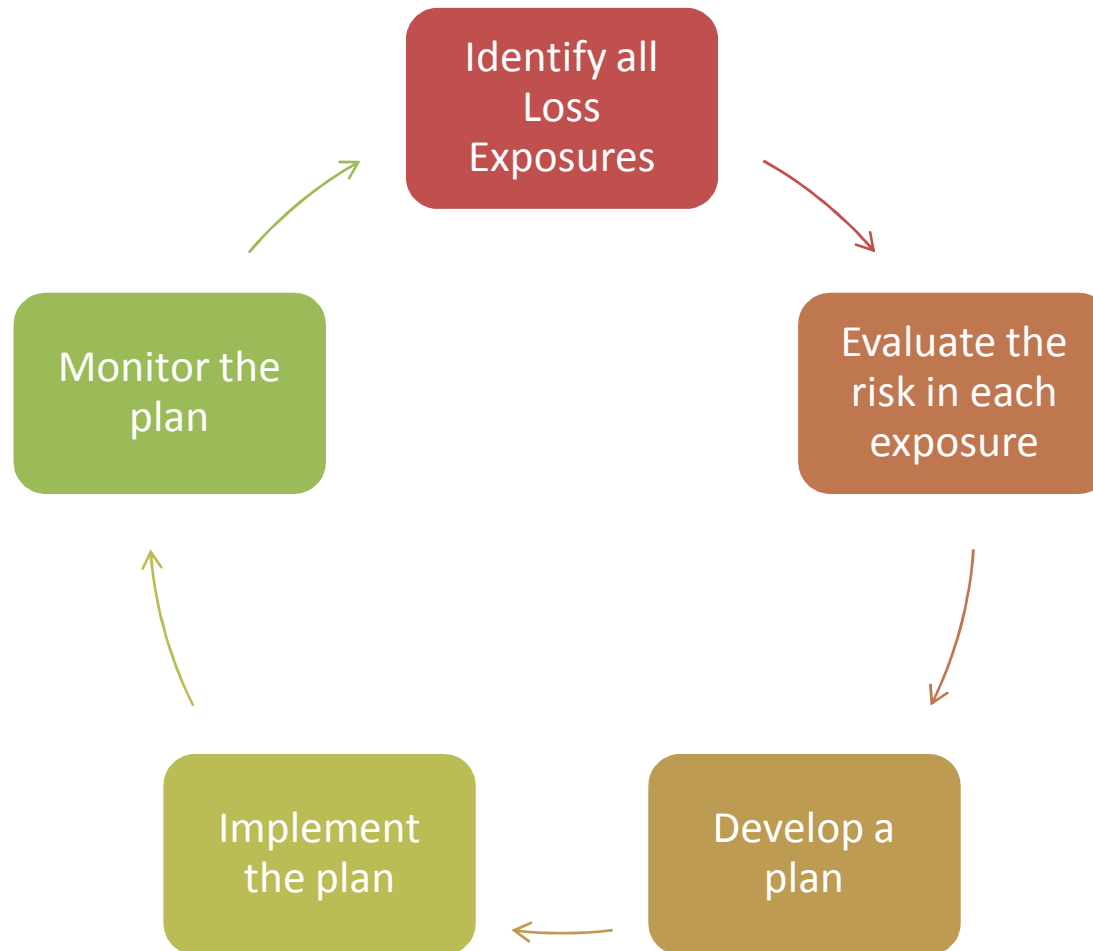
Uncontrolled release of fugitive dust, flammable liquids, smoke etc.

Emergency Preparedness Plan

An **Emergency Preparedness Plan** is envisaged to provide guidelines for the personnel of the establishment to effectively combat the emergency situations that might arise.



Process of preparing Emergency Preparedness Plan



Loss Exposure Analysis

The Emergency Response Plan must be based on a systematic and comprehensive assessment of risks to identify emergency needs.

- What can happen?
- How likely is it to happen?
- How severe could it be?
- How frequently could it occur?
- What shall we do about it?



Components of an Emergency Plan

- Emergency Reporting Procedures
- Evacuation Procedures
- Work Shutdown Procedures
- Procedures for Control of Hazardous Materials
- Designation of Control Centres
- Definition of Roles and Responsibilities
- Search and Rescue Plan
- “All Clear” and Re-entry Procedures
- Control of Visitors and Contractors
- Plans for “Off-Site” Emergencies



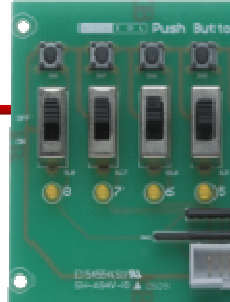
Emergency Teams



- Fire Response Teams
- Security Teams
- Crisis Management Teams
- Rescue Teams
- First-Aid and Medical Teams

Actions to be taken in Case Of Fire

- Sound the fire alarm
- Gather at the safe assembly point.
- Switch off the power supply.
- Inform security.
- Try to contain and extinguish the fire.
- Inform the fire brigade if necessary.
- Call the ambulance, if required.
- Inform all concerned



Training

- All new and transferred employees and contractors
- All persons with emergency responsibilities
- Refresher training of all employees



Command And Control

*The **Overall Commander** designated in the Emergency Preparedness Plan should take over charge at the earliest.*

*In case he is **NOT present** at the site, the next incumbent should take over control of the situation.*

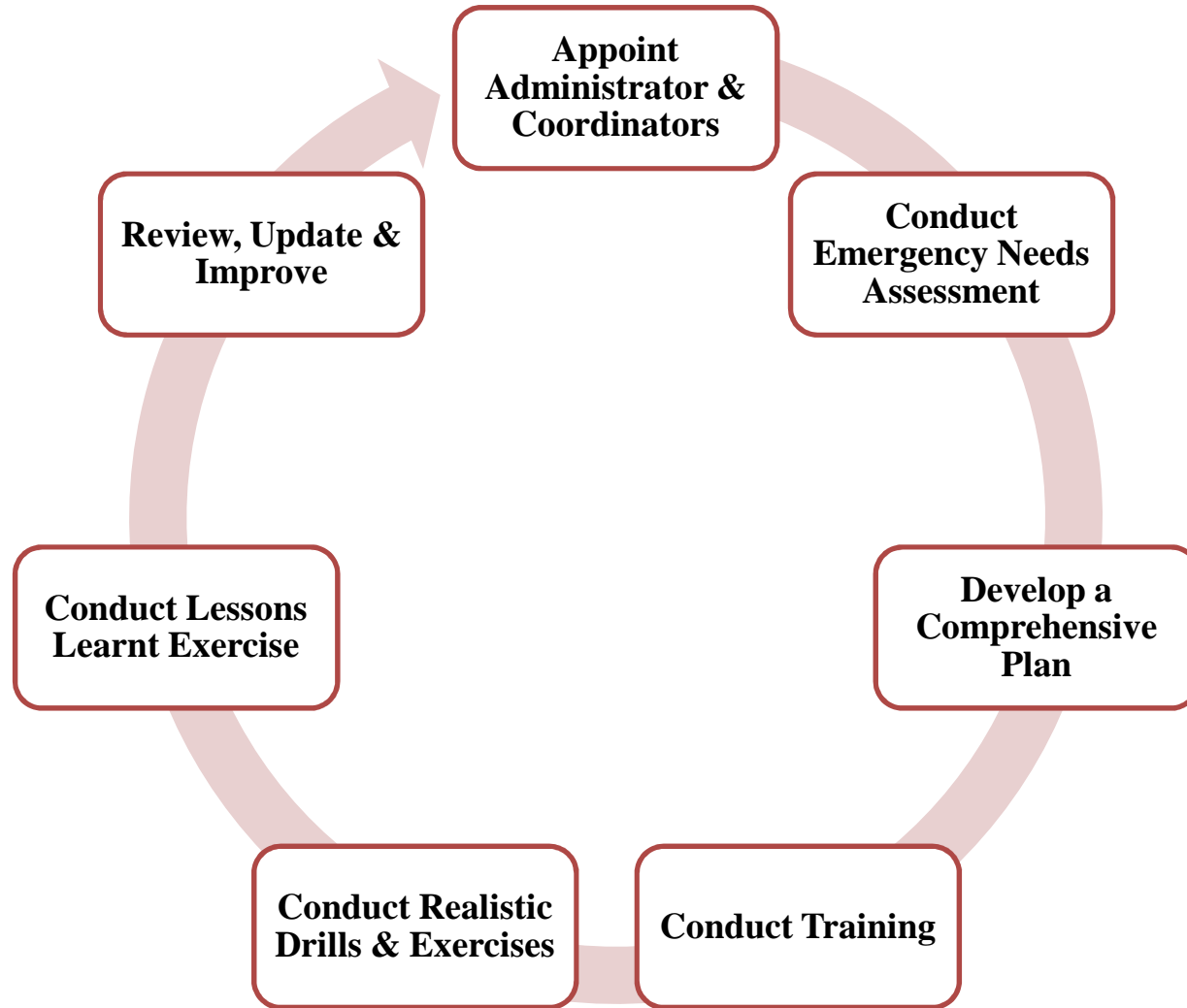
Issues for Consideration

- Participation of Senior Management and conduct of realistic drills
- A clear chain of command and designation authorised to order evacuation and/or shutdown
- System of accounting for personnel following an evacuation
- Marking of primary and secondary evacuation routes
- Procedure for alerting and evacuating physically challenged persons who may require additional assistance – buddy system

Issues for Consideration

- Evacuation wardens designated for each department to ensure evacuation and account for personnel
- Visible directions to emergency exits
- Briefing of contractors and visitors
- Provision of training and PPE to 'rescue team'
- Inspection, maintenance and replacement of fire fighting equipment
- Designate employees who will continue or shut down critical operations during an evacuation. ***These people must be capable of discerning themselves, when to abandon the operation and evacuate themselves.***

Take Home Points



Thank You

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