

Fire Safety

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Why Fire Safety?

- Fire safety refers to planning and infrastructure in an organization that's designed to reduce fires and their effects. This can include things like built-in fire resistant infrastructure, preventive actions, the presence of firefighting equipment, and people trained to operate those.

Why Fire Safety?

- Fire protection refers to measures taken to prevent fire from becoming destructive, reduce the impact of uncontrolled fire and save lives and property. It involves the implementation of safety planning practices and drills, and includes education on fire, research, investigation, safety planning, building construction, safe operations, training and testing of mitigating systems.

Results of ignorance of fire safety

February 2013 -Kolkata

A major fire broke out at a multi-storey market complex in Kolkata in which at least **19 people were killed** and over a **dozen critically injured**.

September 2012 -Tamil Nadu

A catastrophic explosion in a private **fireworks factory** at Mudalipatti near **Sivakasi** in Tamil Nadu **claimed lives of 54 while 78 were injured**.

December 2011 -Kolkata

In the **AMRI hospital** of **Kolkata 89 people were killed** by a hazardous fire and due to suffocation caused by carbon monoxide spread across the hospital premises.

April 2006 – Meerut

In Brand India Fair at Meerut Victoria Park fire Uttar Pradesh, a major fire broke out and **killed 100 people** on April 2006.

September 2005 -Bihar

Three illegal firecracker factories in the Khusropur village of Bihar caught fire leading to **deaths of 35 people and left 50 injured** in September, 2005.

June 2002 -Agra

In the Shree Lee International footwear factory of Agra, Uttar Pradesh fire broke out **and 42 people were killed** on June 26.

July 2004 -Tamil Nadu (Kumbakonam)

In the Sri Krishna Aided Higher Secondary School at Kumbakonam in the Thanjavur District of Tamil Nadu **94 children were dead and many injured**. Erwadi fire incident was another worst fire incident in Tamil Nadu.

Uphaar Cinema Fire 1997 -Delhi

The Uphaar Cinema fire, occurred on June 13, 1997 at Uphaar Cinema near Green Park in Delhi. It was the one of the worst fire tragedies in Indian history, **killing 59 people and 103 were seriously injured**.

February 1997 – Odisha (Baripada)

In a religious congregation at Baripada Odisha, A calamitous fire broke out in which **206 people were dead and 148 were injured**.

December 1995 –Haryana (Dabwali)

The worst of fire incident in the county, Dabwali fire accident occurred on 23 December 1995 at Mandi Dabwali in Haryana. **540 people were killed due to fire caused by an electric generator short-circuited and the stampede**.

Statutory & other provisions

- Factories Act & State Factories Rules
- National Building Code of India 2016
- OISD Standards & Guidelines
- TAC guidelines
- BIS Standards
- Petroleum Act & Rules
- Explosives Act & Rules
- IE Rules & CEA Regulations
- Maharashtra Fire & Life Safety Act, 2006

Factories Act & State Factories Rules

Bihar/Jharkhand Factories Rules 1950 –

Rule 62 (1) – General

Rule 62 (2) – Protection against lightening

(3) – Explosives

(4) – Precautions against ignition

(5) – Spontaneous ignition

(6) – Cylinders containing compressed gas

(7) – Storage of flammable liquids

(8) – Accumulation of flammable gas & dust

Factories Act & State Factories Rules

Bihar/Jharkhand Factories Rules 1950 –

Rule 62 (9) – Fire exits

- (10) – First aid fire fighting arrangements
- (11) – Types of first aid FF equipments
- (12) – Scale of first aid FF equipments
- (13) – Equipment shall conform to IS standards.
- (15) – Placed in conspicuous position
- (17) – To be charges as per mfgs instruction.
- (21) – Maintenance, inspection to be carried out by properly trained person. To be done as per relevant IS standard.

Factories Act & State Factories Rules

Bihar/Jharkhand Factories Rules 1950 –

Rule 62 (22) – **Other fire fighting arrangement** – Provision of water supply for fire fighting

$A+B+C+D/20 = 550$ (LPM) or more, there is need for trailer fire pump,

Water supply duration – atleast 100 minutes



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(23) – Personnel in-charge of equipment and for fire fighting, fire drills etc.

(24) – Automatic sprinklers & hydrants shall be in addition & not in substitution of requirements in sub rule (10) and (22)

(25) – Access for fire fighting

Statutory & other provisions

- **National Building Code of India 2016**

Classification of occupancies –

R - Residential

E - Educational

I - Institutional

A - Assembly

B - Business

M - Mercantile

I - Industrial

S - Storage

H – Hazardous

The NBC specifies Fire Safety requirements for each of the occupancies listed above.

Statutory & other provisions

- OISD Standards & Guidelines – For the hydrocarbon (Oil & Gas industry) in India
 - Very specific standards are available for each of the installations.

Leaders Role

- To ensure that the organisation conforms to the statutory & other provisions applicable to it.
- Whether adequacy assessment for fire safety arrangements is carried out?
- Whether emergency response plans are prepared & adequate to address the scenario in the organisation?
- Whether people are trained for response to the fire emergency events?

Thank You