

Accidents & Their Effect on Industry

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Accident

Definition:

“An Unplanned incident resulting in ill-health, injury, death or damage”.

Industrial Accident

Definition:

“An industrial accident is a serious event that involves hazardous materials and that can have consequences for the surrounding population and environment”.

- Accidents in industries, causing loss of man-power and productivity, are the major obstacle which can stall the establishment's growth.
- Due to fast-track growth in industrialization which involves more usage of electrical power, chemicals, engineering and automation tools and machinery, the process of work has become more complex and difficult.
- Accidents at workplaces can be sudden and unexpected which can disrupt the normal activity, whether temporarily or for a prolonged period.

Causes of Accident

The main causes of accidents may be grouped as under:

1. Unsafe Conditions:

They arise when improper working conditions, poor maintenance of equipment's, machines and control devices, poor construction of building, and improper plant layout, etc.

They include:

- i. Improperly guarded equipment.
- ii. Defective machines, and equipment's.
- iii. Hazardous procedures in, on, or around working place.
- iv. Poor ventilation.
- v. Improper plant layout.
- vi. Lack of proper store, for example, congestion, overloading.
- vii. Poor maintenance of machines and equipment's.
- viii. No proper and sufficient supply of tools.
- ix. Excess work schedule.
- x. Improper illumination, for example, glare, insufficient light.

2. Unsafe Acts:

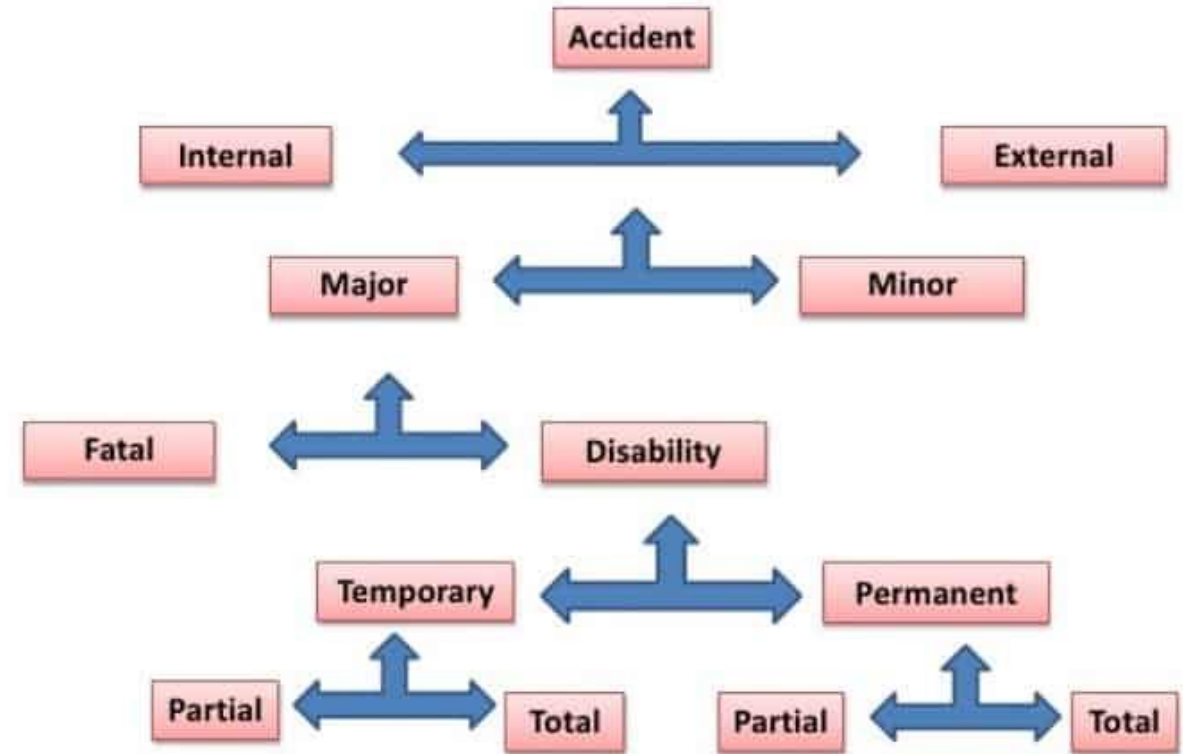
They arise when skill is insufficient, physical or mental conditions of employee is not good and sometime due to wrong attitudes of the employee.

They include:

- i. Improper handling of materials or finished goods.
- ii. Operating at unsafe speeds, either too low or too fast.
- iii. Failing to use protective equipment.
- iv. Using unsafe methods or procedures.
- v. Using equipment unsafely.
- vi. Lifting improperly.
- vii. Improper training.
- viii. Mental return of employee.

TYPE OF ACCIDENTS

- Accidents can be classified according to the nature, severity, number of victims and degree of injury.
- Mishaps causing mortality, huge property loss, permanent or long-term impact on workers, can be defined as major accidents while a small cut or injury which may not render a worker out of action is known as minor accident.
- Sometimes, accidents caused due to poisonous gas or chemicals can lead to internal injury or acute health problem to workers.



Prevention From Accidents

- Safety First.
- Training and Education.
- Hire Qualified Workers.
- Hire Enough Workers.
- Provide Proper Personal Protective Equipment (PPE)
- Ensure Routine Maintenance of Equipment.
- Conduct Safety Inspections.
- Maintain a Safe Environment.

Example of Major Industrial Accidents

Date	Location	Accident	Potential Cause	Consequences
2014	Manisa, Turkey	Explosion in the Soma mine	Detection failure of carbon monoxide gas	301 deaths
2013	Texas, USA	Explosion in a fertilizer manufacturing plant	Storage problems of chemical substances	14 deaths and 200 injured
2012	State of Falcon, Venezuela	Fire at the Amuay refinery	Storage problems of chemical substances	48 deaths
2010	Copiapó, Chile	Collapse of the copper and gold mine in San José	Lack of reinforcement; poor decision-making	33 miners trapped underground rescued after 69 days
2010	Gulf of Mexico, USA	Explosion on the off-shore oil-drilling platform Deepwater Horizon	Poor decision-making	11 deaths, vast environmental damage
2010	Connecticut, USA	Explosion at an electrical power plant	Storage problems of chemical substances	5 deaths, 12 injured