

Hazard Checklist

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Mechanical Hazards

Properties of machine parts or workpieces, like:

- (a) Shape
- (b) Relative location
- (c) Mass and stability (potential/kinetic energy)
- (d) Inadequacy of mechanical strength
- (e) Accumulation of energy inside the equipment, e.g.:
 - Elastic elements (springs)
 - Liquids and gases under pressure
 - The effects of vacuum

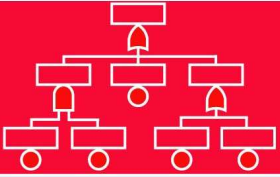
1. Crushing hazard
2. Shearing hazard
3. Cutting or severing hazard
4. Entangling hazard
5. Drawing-in or trapping hazard
6. Impact hazard
7. Stabbing or puncture hazard
8. Friction or abrasion hazard
9. High pressure fluid injection or ejection hazard

– From EN 1050 (1996)

● Mechanical Hazards

- Electrical Hazards
- Thermal Hazards
- Thermodynamic Hazards
- Noise Hazards
- Vibration Hazards
- Radiation Hazards
- Materials/Substances Hazards
- Environmental Hazards

Electrical Hazards

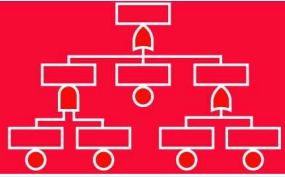


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1. Contact of persons with live parts (direct contact)
2. Contact of persons with parts which have become live under faulty conditions (indirect contact)
3. Approach to live parts under high voltage
4. Electrostatic phenomena
5. Thermal radiation or other phenomena such as the projection of molten particles and chemical effects from short circuits, overloads, etc.

– From EN 1050 (1996)

Thermal Hazards

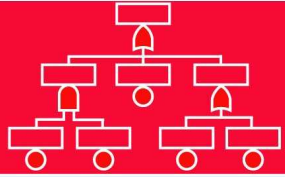


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1. Burns, scalds and other injuries by a possible contact of persons with objects or materials with an extreme high or low temperature, by flames or explosions and also by radiation of heat sources
2. Damage to health by hot or cold working environment

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Thermodynamic Hazards



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1. Overpressure
2. Underpressure
3. Over-temperature
4. Under-temperature

Hazards Generated by Noise

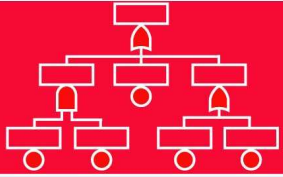
Resulting in:

1. Hearing loss (deafness), other physiological disorder (e.g., loss of balance, loss of awareness)
2. Interference with speech communication, acoustic signals, etc.

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Hazards Generated by Vibration

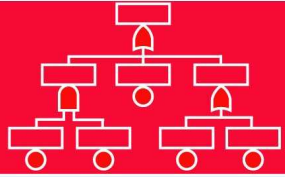


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1. Use of hand-held machines resulting in a variety of neurological and vascular disorders
2. Whole body vibration, particularly when combined with poor postures

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Hazards Generated by Radiation

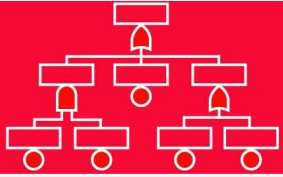


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1. Low frequency, radio frequency radiation, micro waves
2. Infrared, visible and ultraviolet light
3. X and gamma rays
4. Alpha, beta rays, electron or ion beams, neutrons
5. Lasers

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Hazards Generated by Materials/Substances



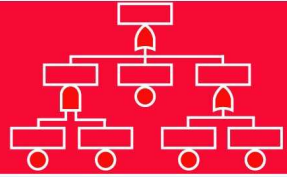
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1. Hazards from contact with or inhalation of harmful fluids, gases, mists, fumes, and dusts
2. Fire or explosion hazard
3. Biological or microbiological (viral or bacterial) hazards

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- Flammables (ignition, fire, explosion/detonation)
- Chemicals (toxicity, corrosion, off-specification)
- Pollutants (emissions, effluents, ventilation)

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1. Avalanche
2. Epidemic
3. Flooding
4. Freezing temperatures
5. Lightning
6. Seismic activity
7. Snow and ice
8. Storm
9. Volcanic eruption