

Construction Safety and Health

Health and Safety at work

Concern for safety and health of workers

What is health

Health according to W.H.O is physical and mental well being

Safety

- Safety is being in a status of not experiencing both physical and mental health
- It can be at work, at home or outside

Types of hazards that can cause illness and injuries

- Physical
- Chemical
- Biological
- Ergonomic
- Electrical
- Mental

Types of hazards

- Working at heights
- Electricity – live / handling tools / ladders and overhead wires
- Vehicles (accidents and toxins in emissions)
- Tools (type and use)
- Dusts (Cement, asbestos, general soil, silica, wood etc.)

Types of hazards (Contd.)

- Chemicals handling and exposure
- Ergonomics
- Stress (workplace / females – sexual abuse, harassment etc.)
- Noise
- Light
- Temperature (climate / workplace factors)

Physical hazards

- Noise
- Heat / cold
- light
- Vibration
- Heights

Working at heights



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Types of physical injuries

- Hitting against stationary objects
- Objects hitting (striking) stationary persons
- Crushed between objects
- Moving objects/vehicles
- Falling objects
- Hand injuries (forceful exertion by poorly designed tools)
- Crush injuries, abrasions, contusions, separation of parts

Types of physical injuries (Contd.)

- Contact with thermal extremes
- Constant contact (abrasions, dermatitis)
- Repetitive use / vibration
- Ergonomic issues (postures /standing)
- Burns (electricity / heat)
- Light (UV) related issues / sun burns
- Noise induced hearing loss

Noise and Vibration



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Construction accidents



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Dead worker...



Working at heights...



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Chemicals

- Asbestos
- Carbon monoxide / diesel exhaust,
- Organic solvents
- Welding fumes
- Wood dust
- Cement

Chemical injuries

- Burns (accidental spraying or spillage)
- Inhalation (acute and chronic) – NO₂, Carbon monoxide, Ozone, Diesel fumes, Particles etc.
- Contact Dermatitis (e.g. cement)

Workplace stress

Stress could be best defined as a form of the relationship between environmental demands and a person's ability to meet the demands.

In the workplace, this is the workplace environment demand and the worker's ability to cope up with it. Failure to meet the demands will present with consequences. In workplace situations, workplace stress is more often called "quality of working life"

Illnesses (Direct and Indirect)

- Long term illnesses due to inhalations (Asbestosis, silicosis, occupational asthma and occupational bronchitis)
- Skin diseases
- Exposure to noise
- Illnesses due to living conditions (water, food, hygiene etc.)
- Illnesses due to location
- Sexually transmitted illness/ alcohol

Cement burns/dermatitis



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Food handling

- Food handling is an important area
- Cooks hygiene standards are important
- Washing facilities
- Proper cooking
- Proper storing

Food hygiene



Waste disposal

- Poor waste disposal practices promote fly breeding. The unhygienic methods of waste disposal can cause foul odors emanating from the waste sources thereby polluting the environment.

Waste management

- Important area
- Flying breeding is a most important issue
- Foul odor can be an annoyance and discomfort

Occupational health services

- Remote sites
- Lack of proper health services
- Nature of the work and high risk of injuries
- First aid training
- Handling of serious and emergency cases
- Availability of a vehicle **ALL TIMES**

Safety

- Policy and Commitment
- Policy – purchasing policies, work schedules, working protocols
- Availability of a Safety officer
- Education / training
- Accident reporting including near misses

Safety (contd.)

- Regular safety analysis of processes and work stations, inspection of tools
- Identifying hazards
- Electrical (proper grounding, proper insulation, having circuit interrupters)
- Personal protective equipment (PPE) – education, inspection and maintenance
- Working at heights (proper ladders and inspection, availability of proper scaffoldings, harnesses etc.)
- Include the employee

Special issues

- Cross over of occupations
- Women
 - Physical difference
 - Sexual abuse
 - Pregnancy
- Separation from home
- Work related stress
- Food and lodging
- Health services
- Insurance cover / compensation
- STIs/HIV
- Communicable diseases

Living habitat

- Short height
- Overcrowding (communicable and environmental diseases)
- Storing of cement close to sleeping/living area
- Malaria risk minimal
- Water collection was seen in coconut shells, old tyres etc. providing a risk of dengue fever

Water collection



Living quarters



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General house keeping

Workplace collection of unwanted and unused materials were, at some places, conducive towards injury risks and also was not orderly

House keeping...



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Other issues

- Monotony and being away from home (alcoholism, drugs use, sexual behavior)
 - psychological aspects have to be of concern and addressed

Important concerns

- To appreciate known issues
- Conduct training to educate persons
- Implement any recommendations
- Total commitment to safety and health