

Welcome To Our Presentation

The Presentation On “INDUSTRIAL HYGIENE”



Prepared By:

Md. Feroz Mahmud ID:130103023 (Group Leader)

Md. Naser Uddin ID:120103025

Md.Salauddin al mamun ID:090103022

Industrial Hygiene

- ▶ Industrial hygiene is defined as the recognition, evaluation and control of workplace hazards.
- ▶ Its origins are based on limiting personal exposures to chemicals, and have evolved to address the control of most other workplace hazards including over-exposure to noise, heat, vibration, and repetitive motion

OSHAct of 1970

- ▶ The purpose of the OSHAct is to
“assure so far as possible every working,
man and woman in the nation safe and
healthful working conditions and to
preserve our human resources.”

Environmental Factors or Stresses

Chemical hazards

- gases, vapors, dusts, fumes, mists, and smoke

Physical hazards:
radiation, noise,
vibration, extreme
temperatures and
pressures



Environmental Factors or Stresses

Ergonomic hazards

- workstation design, repetitive motion, improper lifting/reaching, poor visual condition.

Hazards



Biological hazards

- insects, mold, fungi, bacteria, and viruses

OSHA Hierarchy of Control

Engineering controls

Work practice controls

Administrative controls

Personal protective equipment (PPE)



Types of Exposure

- ▶ Acute
 - ▶ Short term period between exposure and onset of symptoms
- ▶ Chronic
 - ▶ Long time period between exposure to an agent and the onset of symptoms

Types of Air Contaminants

- ▶ **Fibers**
 - ▶ solid, slender, elongated structures
 - ▶ length several times the diameter
- ▶ **Gases**
 - ▶ formless fluids that expand to occupy a space
 - ▶ arc-welding, internal combustion engine exhaust air
- ▶ **Vapors**
 - ▶ liquid changed to vapor
 - ▶ organic solvents



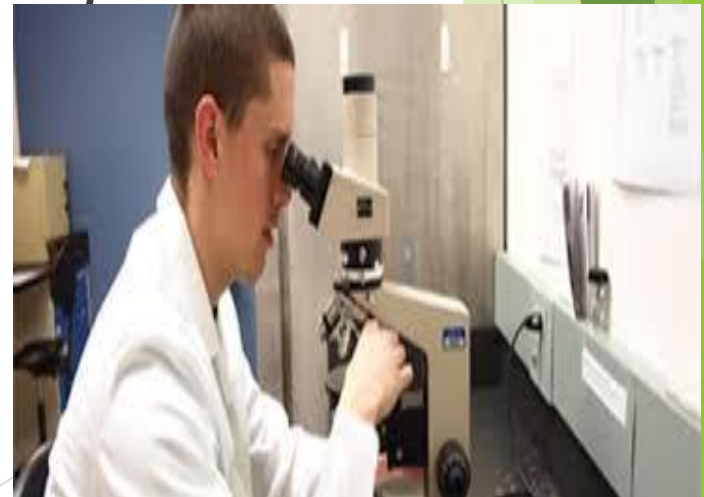
Protection

- The selection of appropriate personal protective equipment for exposure control often requires both an understanding of the limitations of the equipment, and the expected exposure parameters as determined by an industrial hygiene evaluation. Engineering controls are considered the preferred method of control, but personal protective equipment plays an important role for health, safety, and rescue. The potential for misuse or misapplication of these devices should be evaluated.



USES OF INDUSTRIAL HYGIENE SURVEYS

- To determine the workers exposure to toxic agents.
- To check the effectiveness of technical services e.g. Ventilator systems in a plating shop.
- To determine if complaints are justified.
- To have base line data.



- ▶ To compare the standard of working environment
- ▶ To assess fire/explosion level of flammable /explosive substances.
- ▶ To have safe and healthy work environment
- ▶ To find the effectiveness of a new machine process or systems
- ▶ To protect the workers health and well being

BENEFITS

- ▶ You can keep the known hazards under control
- ▶ Find causes
- ▶ Establish Hygiene Standards
- ▶ Make the work environment ambient
- ▶ Prevent accidents
- ▶ Increase morale of workers
- ▶ Eco friendly manufacturer

ECONOMIC BENEFITS

Increased production.

Less expenditure on curative aspect on the part of sick people.

Less absenteeism.

PEOPLE CONTRIBUTING TO INDUSTRIAL HYGIENE

- ▶ Occupational Physician.
- ▶ Industrial Hygienist.
- ▶ Safety Officer.
- ▶ Occupational Health Nurse.

Thank To All Of You.