Safety and Health Movement Then and Now

Objectives

-Developments before Industrial Revolution

-Developments before Industrial Revolution (Hammurabi ,Remises II ,Roman Time)

-Industrial Revolution Benefits

-Milestones in the development of the safety movement

-OSHA (Occupational Safety and Health Act)

Disasters (Disasters ,Asbestos Menace ,Bhopal Tragedy)

Safety and Health Movement Then and Now

Introduction

- Safety and health awareness has a long history.
- The safety movement in the United States has developed since 1900s.

- That is since the industrial revolution

Safety and Health Movement Then and Now

Developments before Industrial Revolution:

-Hammurabi

- There is evidence of occupational safety and heath efforts as far back as the time of the ancient Babylonians.
- The code of Hammurabi of Babylonians, circa 2000 B.C., contained clauses that could be interpreted as early attempts at workers compensations.

Safety and Health Movement Then and Now

-Developments before Industrial Revolution:

-Remises II

- The movement continued in Egyptian civilization whom are industrious people where labour was provided by slaves.
- During Remises II to ensure the maintenance of a workforce sufficient to build the huge temple, he created an industrial medical service to care for the workers, also they were required to bath daily in the Nile and given regular medical service. Sick workers were isolated.

Safety and Health Movement Then and Now

-Developments before Industrial Revolution:

-Roman Time

- There is also evidence of concern for safety and health during the time of the Romans.
- They built sewerage system, public baths, latrines, and well-ventilated houses.

Safety and Health Movement Then and Now

-Industrial Revolution Benefits

- Introduction of inanimate power to replace people and animal in works.
- Substitution of people by machines.
- New methods for converting raw materials.
- Division of labour by well-organized and
- specialization of works.

Safety and Health Movement Then and Now

-Milestones in the development of the safety movement:

- Milestones in the development of the safety movement in the United States include the following:
- First recorded safety program in 1892.
- Creation of the Bureau of Mines in 1907.
- Passage of the first effective workers compensation law in the United States in 1911.
- Passage of Occupational Safety and Health Act (OSHA) in 1970.

Safety and Health Movement Then and Now

-OSHA (Occupational Safety and Health Act):

- Is the government's administration arm for the Occupational Safety and Health Act (OSH Act)
- Formed in 1970, it must do the following:
- Sets and revokes health standards.
- Conduct inspections.
- Investigates problems.

Safety and Health Movement Then and Now

-**OSHA (Occupational Safety and Health Act):**

- Issues citations.
- Assesses penalties.
- Petitions the courts to take appropriate action against unsafe employers.
- Providing safety training.
- Provide injury prevention consultation and maintains a database of health and safety statistics.

Safety and Health Movement Then and Now

Disasters

are event, especially one occurring suddenly and causing great loss of life, damage, or hardship, as a flood, airplane crash, or business failure.

-Disasters are due to bad luck, some causes are:

- Poor emergency planning.
- Bad design.
- Putting production pressures before safety
- Inadequate training.
- Bad control room ergonomics.

Safety and Health Movement Then and Now

Disasters

-Tragedies due to the disaster which have changed the face of the safety movement in the United State at different times are:

- The Hawks Nest tragedy.
- Asbestos Menace.
- Bhopal Disaster.

Safety and Health Movement Then and Now

- **Disasters**
- **Hawk’s Nest Tragedy**

- Happened at 1930.
- A company was given a contract to drill a pass way through a mountain located in the Hawk’s Nest region of west Virginia.
- Workers spent 10 hours a day breathing dust created by drilling.
- The dust contains of high silica content.

Safety and Health Movement Then and Now

- **Disasters**
- **Hawk's Nest Tragedy**
- Silicosis takes 10-20 years to show up, but here workers began dying in as little time as a year.
- Hundreds died at the completion of the work.
- The company buried some without notifying
- their families.

Safety and Health Movement Then and Now

- **Disasters**
- **Asbestos Menace**

- It was a miracle fiber at 1964 used in homes, schools, offices, factories, etc.....
- Dr. Selikoff told 400 scholars in a conference that asbestos was the reason for lung cancer, and respiratory diseases.
- Between 1967-1986 he studied the mortality rate of 17800 workers who had been exposed to asbestos.

Safety and Health Movement Then and Now

Disasters

Asbestos Menace

- He found asbestos-related cancer in lunges, gastrointestinal tract, larynx, kidneys, pancreas and gall bladder of the workers.
- Now there is an industrial wide effort to

protect workers who must remove asbestos

from old buildings and ships during remodelling

Safety and Health Movement Then and Now

- **Disasters**
- **Bhopal Tragedy**

- Happened in the morning of December 3rd,1984, where over 40 tons of methyl isocyanate (MIC) and lethal gas including hydrogen cyanide leaked into northern Bhopal, killing more than 3000 people in its afternoon.
- It was a joint Indian/American owned plant and the worst ever in chemical industry. Within crowded working-class neighborhood in Bhopal.
- A dense cloud of 25 tons of toxic methyl isocyanate gas (MIC) leaked from a storage take over the surrounding shanty town.

Safety and Health Movement Then and Now

- **Disasters**
- **Bhopal Tragedy**

- At least 2000-10000 people were killed and 25,000 were permanently disabled.
- Water contamination of MIC gave a runway reaction and the MIC was released to the atmosphere by pressure relief valve.

Safety and Health Movement Then and Now

- **Disasters**
- **Bhopal Tragedy**
- **Causes and consequences:**

- The unnecessary storage of a large MIC.
- The lack of land use planning.
- The temperature and pressure instrumentation were poorly maintained and known to be unreliable.
- The refrigeration system on the storage tank was not in use.
- The scrubbing system was not in full working order.
- The flair system was disconnected for repair.