



# An Evaluation of OHS Practices in Steel Re-rolling Mill, Islamabad

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# Introduction


- Occupational health and safety is a cross disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.
- Due to the globalization of trade, several organizations are now involved in:
  - monitoring unfair labor practices
  - environmental health and
  - safety conditions in developing countries
- Pakistan has joined the World Trade Organization (WTO).

# Introduction

- According to the WTO requirements, foreign investors require compliance of the local industry with international standards i.e. ISO
- In 2001, the government announced a Labor Policy Initiative and proposed to create a National Occupational Safety and Health Council (NOSHC)
- Due to this negligence, the local industry could cost the country billions in international trade.




# Objectives

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- To look at the OHS practices in Pakistan's steel re-rolling mill
  - To compare the local steel re-rolling industry processes with international industry processes
  - To raise the OHS awareness in the case industry studied



# Methodology

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- Desk study to collect the necessary information
  - Checklist designed
  - Visit to steel re-rolling unit to observe OHS issues
  - Comparison of local and international steel industry processes



# Potential OHS hazards in Steel Mills

- Pinch points and moving equipment
- Transportation equipment (hot metal cars, transfer cars)
- Overhead cranes (equipment failure, communication breakdown)
- Operating equipment (operate on a timed basis, or may be remote-controlled)

# Potential OHS hazards in Steel Mills

- Explosion and burn hazards (spills of molten material, piping network of fuel gases and oxygen)
- Chemical Hazards (MSDS, acids, ammonia, asbestos and CO)
- Dusts (iron oxide, coal, coke and silica)
- Heat is largely generated and used in a steel plant
- Noise is also a physical hazard in a steel mill



# **Results & Discussion**

# OHS practices in International Steel Mills

- The original code of practice on safety and health in the iron and steel industry was adopted at a meeting of experts in 1981.
- Governing Body of the ILO at its 28th Session in November 2003, drew up and adopt a revised code of practice on safety and health in the iron and steel industry.

# Case study of Corus Engineering Steels, UK

## **CES**

- Two computer controlled bloom re-heating furnaces
- In line sawing
- Controlled cooling facilities
- In line automatic product stamping and sampling

## **Local industry**

- Two manually controlled re-heating furnaces
- Manual sawing by crews
- Uncontrolled cooling facilities
- Manual product stamping

# OHS practices in Pakistan Steel Mills



# Case study of Ittehad Steel Mill

- In 1978, they had started a steel manufacturing facility in Islamabad
- The Ittehad Group is a privately-held, diversified Pakistani Conglomerate with interests in: steel, real-estate, logistics, automobiles, hospitality and general trading
- Largest Pakistani exporters of re-bars to Afghanistan and employing over 450 people
- Group Turnover in 2007-2008 of over PkRs. 2 billion

# **Occupational Health and Safety issues in Ittehad Re-rolling Steel Mill**

- Relatively well-managed unit
- Contractors are responsible for production & dealing with workers
- A number of OHS issues are figured out in the unit during the OHS audit



# Manual handling of heavy load

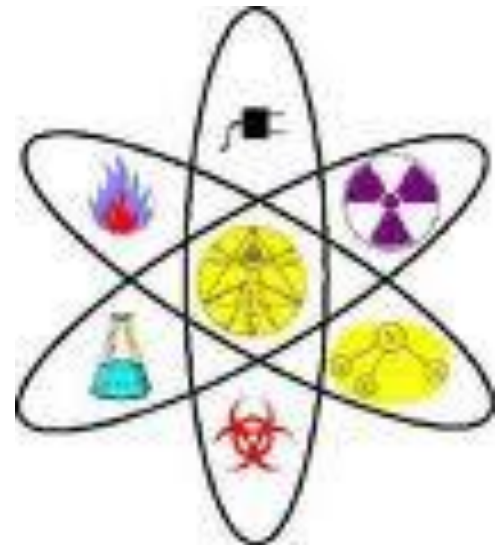


- Workers have to uplift steel blocks of 60-90 Kg weight



# No MSDS displayed

- No MSDS to guide the workers about the health and safety issues at the work place.



# Fire extinguishers

- Do present in store room but are not displayed on proper points even in the office areas.



# Emergency exits

- No emergency exits are marked
- No emergency training or drill
- No emergency procedures
- No warning alarm exists in case of fire



# No Personal Protective Equipment

- Workers are working without PPE even tongs men are working without PPE



# Regular training & drill

- Only for some selected workers
- Three days training about health and environmental issues



# First Aid

- First aid facilities are present
- A medical officer is present



# Machines are without guards and safety devices

- Automatic machines and steel rollers are without safety guards
- No heat insulating guard is placed near the hot areas of process





# Crowded walk ways

- Walkways are very crowded and full of hurdles
- Greasy and oily liquids are present on floor of walkways



# Indigenous cooling fans

- Fans are used for cooling
- Fans are without safety guards



# Electrical & Fire hazards

- Electric boards are unattended and without any cover
- Use of power boards and extension chords is pretty much high



# Poor house keeping



- No health & hygiene measures
- Walkways are not free to move



# Excessive Noise

- Noise level is very high at workplace
- No noise insulating system is present




# Heat

- In steel re-rolling mills heat is generated and used on high levels
- No insulating material is present around the furnace






# Conclusions


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- ISM need to develop “Safe Work Protocol”
  - Contractors should make safety protocols mandatory






# Recommendations

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- OHS orientation training to all new employees
  - Safe work practices, and emergency procedures for fire
  - Floors should be level, even, and non-skid
  - Clear passages to emergency exits

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- Measures to prevent unauthorized access to dangerous areas
  - Provide sufficient fresh air to workers at hot work spaces
  - In each shift rescuers should be defined and trained
  - Locking out and tagging-out practices during service or maintenance

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- Prohibit manual handling of heavy objects that are more than 15 Kg
  - Energy efficient light sources should be used that produce less heat
  - Active use of PPE should be made mandatory and force the workers to wear the PPE

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## Questions & Answer

