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

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Sequence of presentation

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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
• 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
• 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 reheating 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
• ISM need to develop “Safe Work Protocol”

• Contractors should make safety protocols mandatory
Recommendations
• 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
• 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
• 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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References

References

- World Trade Organization (WTO), Geneva, Switzerland.
- www.corusgroup.com
Questions & Answer