

Project Risk & Supply Chain Risk Management



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Lecture 11

PMG 663

Project Risk & Supply Chain Risk

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Chapter
10

Materials Management

- Material management is an approach for planning, organizing, and controlling all those activities principally concerned with the flow of materials into an organization.
- The scope of Materials Management varies greatly from company to company and may include material planning and control, production planning, Purchasing, inventory control, in-plant materials movement, and waste management.

- Coordinating function that balances the conflicting objectives of marketing, production, and finance by managing the flow of Materials.
- Balancing the Resources of the company with Customer Demand

- Make the best use of company resources
- Provide the desired level of customer service (demand)

Purpose of Material Management

- To gain economy in purchasing
- To satisfy the demand during period of replenishment
- To carry reserve stock to avoid stock out
- To stabilize fluctuations in consumption
- To provide reasonable level of client services



Objective of material management

Primary

- Right price
- High turnover
- Low procurement & storage cost
- Continuity of supply
- Consistency in quality
- Good supplier relations
- Development of personnel
- Good information system

Secondary

- Forecasting
- Inter-departmental harmony
- Product improvement
- Standardization
- Make or buy decision
- New materials & products
- Favorable reciprocal relationships

- **Material planning and programming**
- **Purchasing and outsourcing**
- **Inventory control**
- **Storekeeping and warehousing**
- **Codification**



1. Effective management & supervision

It depends on managerial functions of

- Planning
- Organizing
- Staffing
- Directing
- Controlling
- Reporting
- Budgeting

- 2.Sound purchasing methods
- 3.Skillful & hard poised negotiations
- 4.Effective purchase system
- 5.Should be simple
- 6.Must not increase other costs
- 7.Simple inventory control programme

1. Demand estimation
2. Identify the needed items
3. Calculate from the trends in Consumption during last 2 years.
4. Review with resource constraints

Advantages of material management

- Reduced operating costs and timely production.
- Greater job satisfaction on the part of both the workers and the employer.
- Every inch of the space is properly utilized.
- The issue of materials is also facilitated.
- It helps in maintaining effective production planning and control.

- Material management is an important management tool which will be very useful in getting the right quality & right quantity of supplies at right time, having good inventory control & adopting sound methods of condemnation & disposal will improve the efficiency of the organization & also make the working atmosphere healthy any type of organization, whether it is Private, Government ,Small organization, Big organization and Household.
- Even a common man must know the basics of material management so that he can get the best of the available resources and make it a habit to adopt the principles of material management in all our daily activities

Chapter 10

Materials Handling, Storage, Use, and Disposal



Materials handling equipment is mechanical equipment used for the movement, storage, control and protection of materials, goods and products throughout the process of manufacturing, consumption and disposal.

[Types of Material Handling Equipment - YouTube](#)



Factors contributing to injuries:

- Weight and bulkiness of objects
- Bending, twisting, turning movements



Hazards:

- Improper operation of equipment
- Accumulated materials or clutter



- Unsafe conditions of materials or containers
- Flammability or toxicity of some materials



- Weight of materials
- Binding ties or other devices that secure bundles or bound materials

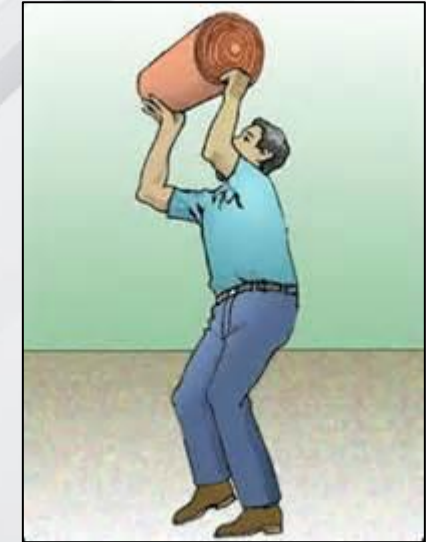


- Improperly stacked materials
- Struck-by or caught-in/-between hazards



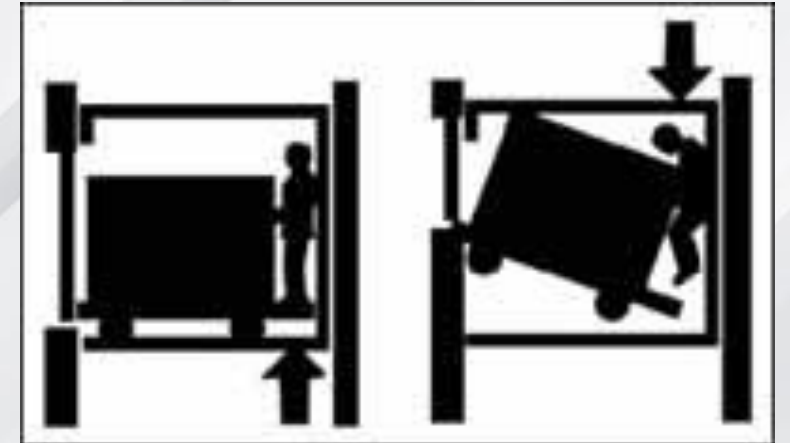
Types of injuries commonly reported:

- Sprains, strains, tears
- Soreness and pain
- Bruises and contusions
- Cuts, lacerations, punctures, crushing, and amputations



Examples of events or exposures leading to injuries:

- Contact with objects and equipment
- Transportation incidents
- Exposure to harmful substances or environments

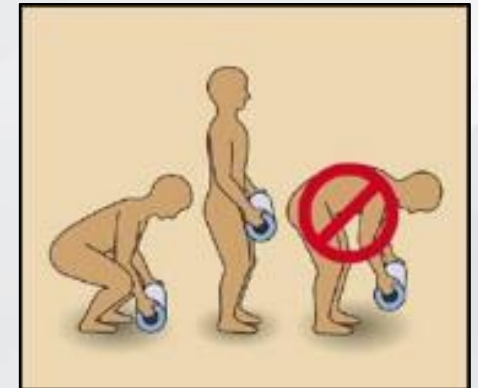


- Falls, slips, trips, or loss of balance
- Repetitive motion
- Overexertion



Moving materials manually:

- Use devices to assist with holding loads
- Wear PPE
- Use proper lifting technique
- Seek help for oversized loads
- Use blocking materials



Preventing Hazards

- Do not leave unused slings suspended on a crane hook
- Store wall-mounted cranes against the wall
- Continuously observe equipment for any sign of problems during operation.
- Don't allow yourself to become distracted.

Preventing Hazards

- Operated only by thoroughly trained and qualified workers

Crane operators:

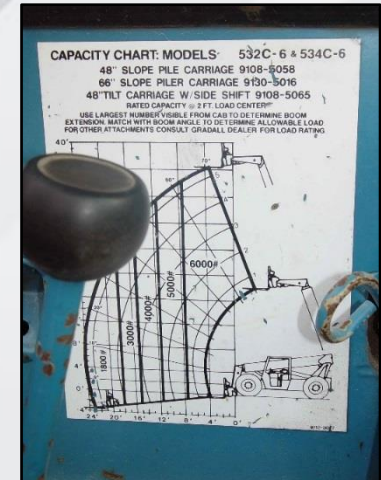
- Must be qualified
- Should know what they are lifting and what it weighs



Preventing Hazards

Eliminate/reduce crane hazards by:

- Knowing
 - Load
 - Capacity of the crane
 - When the load is safe to lift
- Always checking crane load chart and never exceed load limits



Preventing Hazards

- Inspection of crane by a qualified person
 - Modified, repaired, or adjusted
 - Post-assembly
 - At least every 12 months
 - Equipment not in regular use
- Visual inspection by a competent person
 - Prior to each shift
 - Monthly



Forklifts

- Main causes of injuries
 - Forklift overturns
 - Forklift striking workers on foot
 - Persons crushed by forklifts
 - Persons falling from forklifts



Preventing Hazards

- Illegal forklift operators
 - Anyone under 18
 - Anyone not properly trained



Preventing Hazards



- Driving the forklift
 - Obstructed vision
 - Travel path
 - Approaching people
 - Elevated platform
 - Seat belts and
 - Raising/lowering forks
 - Safe distance





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Thank You

