

# **SAFETY MEETING TOPIC: Storage Methods**

## **Employee Hazard & Safety Training**

This training program should allow employees to recognize and avoid materials handling hazards. The content of this training emphasizes factors that will contribute to reducing workplace hazards including the following:

- Alerting the employee to the dangers of lifting without proper training.
- Showing the employee how to avoid unnecessary physical stress and strain.
- Teaching workers to become aware of what they can comfortably handle without undue strain.
- Teaching workers to recognize potential hazards and how to prevent or correct them.
- Awareness of health risks to improper lifting.
- Awareness of individual body strengths and weaknesses— determining one's own lifting capacity.
- Recognition of the physical factors that might contribute to an accident and how to avoid the unexpected.
- Use of safe lifting postures and timing for smooth, easy lifting and the ability to minimize the load-moment effects.
- Use of handling aids such as stages, platforms, or steps, trestles, shoulder pads, and handles.
- Knowledge of body responses—warning signals—to be aware of when lifting.

## **Moving, Handling, and Storing Materials**

When manually moving materials, employees should seek help when a load is so bulky it cannot be properly grasped or lifted, when they cannot see around or over it, or when they cannot safely handle the load.

Handles or holders should be attached to loads to reduce the chances of getting fingers pinched or smashed. Workers also should use appropriate protective equipment. For loads with sharp or rough edges, wear gloves or other hand and forearm protection. In addition, to avoid injuries to the eyes, use eye protection. When the loads are heavy or bulky, the employee also should wear steel-toed safety shoes or boots to prevent foot injuries if he or she slips or accidentally drops a load. Employees should not move bulky items while wearing any type of open toed shoes/sandals.

All stacked loads must be correctly piled and cross-tiered, where possible. Precautions also should be taken when stacking and storing material. Stored materials must not create a hazard.

Storage areas must be kept free from accumulated materials that cause tripping, fires, or explosions, or that may contribute to the harboring of rats and other pests.

When stacking and piling materials, it is important to be aware of such factors as the materials' height and weight, how accessible the stored materials are to the user, and the condition of the containers where the materials are being stored. Non-compatible material must be separated in storage. All bound material should be stacked, placed on racks/shelves, blocked, interlocked, or otherwise secured to prevent it from sliding, falling, or collapsing. A load greater than that approved by a building official may not be placed on any floor of a building or other structure.

When stacking materials, height limitations should be observed. For example, There should always be an 18 inch clearance from any electrical or fire/sprinkler head.

## **Flammable Material Handling & Storage**

In adhering to fire safety precautions, employees should note that flammable and combustible materials must be stored according to their fire characteristics. Flammable liquids, for example, must be separated from other material by a fire wall. Also, other combustibles must be stored in an area where smoking and using an open flame or a spark-producing device is prohibited. Dissimilar materials that are dangerous when they come into contact with each other must be stored apart.

## **Ergonomics of Material Handling**

Ergonomics is defined as the study of work and is based on the principle that the job should be adapted to fit the person, rather than forcing the person to fit the job. Ergonomics focuses on the work environment, such as its design and function, and items such as design and function of workstations, controls, displays, safety devices, tools, and lighting to fit the employees' physical requirements and to ensure their health and well being. Ergonomics includes restructuring or changing workplace conditions to make the job easier and reducing stressors that cause cumulative trauma disorders and repetitive motion injuries. In the area of materials handling and storing, ergonomic principles may require controls such as reducing the size or weight of the objects lifted, installing a mechanical lifting aid, or changing the height of a pallet or shelf. Although no approach has been found for totally eliminating back injuries resulting from lifting materials, a substantial number of lifting injuries can be prevented by implementing an effective ergonomics program and by training employees in appropriate lifting techniques.

In addition to using ergonomic controls, there are some basic safety principles that can be employed to reduce injuries resulting from handling and storing materials. These include taking general fire safety precautions and keeping aisles and passageways clear.

## Proper Lifting Techniques



Follow these tips to avoid compressing the spinal discs or straining your lower back when you are lifting:

- **Keep a wide base of support.** Your feet should be shoulder-width apart, with one foot slightly ahead of the other (karate stance).
- **Squat** down, bending at the hips and knees only. If needed, put one knee to the floor and your other knee in front of you, bent at a right angle (half kneeling).
- **Keep good posture.** Look straight ahead, and keep your back straight, your chest out, and your shoulders back. This helps keep your upper back straight while having a slight arch in your lower back.
- **Slowly lift** by straightening your hips and knees (not your back). Keep your back straight, and don't twist as you lift.
- **Hold** the load as close to your body as possible, at the level of your belly button.
- **Use your feet** to change direction, taking small steps.
- **Lead with your hips** as you change direction. Keep your shoulders in line with your hips as you move.
- **Set down** your load carefully, squatting with the knees and hips only.

Keep in mind:

- Do not attempt to lift by bending forward. Bend your hips and knees to squat down to your load, keep it close to your body, and straighten your legs to lift.
- Never lift a heavy object above shoulder level.
- Avoid turning or twisting your body while lifting or holding a heavy object.