D-33 Manual Material Handling

1.0 Purpose

1.1 The purpose of this procedure is to provide advice on manual material handling on any Buckeye site.

2.0 Policy

2.1 This procedure provides the minimum procedures to be followed when materials are handled and stored on any company work site and applies to all employees engaged in material handling and transporting activities, which are covered by the Health and Safety Manual.

3.0 Scope

3.1 This procedure shall be followed by all contractors and sub-contractors while performing manual material handling.

4.0 General

4.1 Many experts in the field of safety and occupation medicine suggest the use of proper lifting methods. The lifting methods and suggestions are general in nature and may not apply exactly to all lifting tasks since variables such as weight, size and shape of objects or loads as well as the physical build and strength of the person doing the lifting must be considered.

4.2 Mechanical material handling equipment or aids should always be used when possible to lessen the amount of manual lifting required for a job. The amount of weight in a single lift should be limited to approximately 50 pounds when working with sacked or bagged chemicals or materials.

4.3 The following basic lifting practices should be used:

- Approach the load and size it up (weight, size and shape). Consider your physical ability to handle the load and determine if the object can be lifted and carried safely. Get help if it is too much for one person to handle alone.
- Place the feet close to the object to be lifted - 12" apart for good balance.
- Bend the knees to the degree that is comfortable and get a good handhold.
- Then, using both leg and back muscles, lift the load straight up - smoothly and evenly.
- Pushing with your legs, keep load close to your body.
- Avoid awkward positions or twisting movements while lifting.
- Lift the object into carrying position, making no turning or twisting movements until the lift is completed.
- Turn your body with changes in foot position after looking over your path of travel making sure it is clear.
- Setting the load down is just as important as picking it up. Using your leg and back muscles, comfortably lower load by bending your knees. When load is securely positioned, release your grip.

4.4 Avoid strain by storing heavy objects at least 12 inches above the floor if possible.

4.5 When lifting and carrying with another person - teamwork is important. The load should be equally distributed. Movements must be coordinated so you both start and finish the lift action at the same time and perform turning movements together.

4.6 When two persons carry a long object, it should be held at the same level by both and on the same side of the body.

4.7 Detailed elements of safe lifting practices

- A person twisting as he/she lifts or sets down a load causes the most serious back injuries. Twisting can be avoided when your feet are facing the loading or unloading point.

- Stand as close as possible to the load with your feet about 12" apart - this gives the most power from the legs.

- In order to get the weight of the load as close as possible to your body, turn the object at a slant, with a corner in between the legs.

- Move one foot slightly behind the other to get even better balance as you lift or set down a load.

- To improve your balance and keep your feet apart - lift with your arms placed inside of your knees.

- For "heavy" loads (usually greater than 1/3 of your body weight), keep your balance by starting to lift with your heels down flat on the ground.

- Grasping the Load--In order to securely hold the load when lifting, the following technique should be used:

    - Use the near hand (closest to the body) to grasp the bottom corner of the load and support most of the load weight.

    - Use the far hand to grasp the top far corner of the load. This hand keeps the load pulled against the body.

    - Keeping good balance: Keeping the burden of lifting on your legs - leg muscles are stronger than back muscles.

- When lifting, keep your chin level and tucked in to force your back to straighten. This maneuver will automatically help straighten the back.
    - The legs, not the back, should do the work of lifting or setting down. The back should be straight and the legs bent when starting to lift.
    - Another hint on how to keep your back straight while carrying a heavy load - pull in your stomach while walking.
    - Special lifting practices:
        - Straightening up (first drop seat, use legs to straighten)
        - Lifting with one hand (hold to side, use legs only)
        - And in confined areas (Use your knee or wall for support)
    - Common lifting practices errors which may lead to injuries:
        - Not using legs to set load down.
        - Feet too close together
        - Standing too far from unloading point.
        - Not standing directly at loading point.
        - Hands gripping the load wrong.