Take 5 Steps to Protect Workers Who Lift Materials Manually

Although technology has advanced since the days of Ancient Egypt and the pyramids, there are still many workers who carry and move heavy materials manually. What's also advanced is our understanding of how performing these tasks continually over time causes musculoskeletal injuries (MSIs), like strains and sprains to the lower back, shoulders and arms.

5 Steps to Compliance

Taking the following 5 steps should help you avoid citations for manual materials:

Step #1: Determine if Materials Can Be Moved Mechanically

Determine if mechanical devices such as forklifts, dollies, conveyors and hand trucks can be used to move materials. To the extent such mechanical devices are feasible to use, not doing so can lead to citations under the GDC.

Step #2: Assess Risks of Moving Materials Manually

If you determine that it's *not* reasonably practicable for workers to move certain materials mechanically, you must assess the risks of moving such materials manually. There are many factors you should consider in making this risk assessment, including:

- The horizontal distancebetween the front of the worker and the object being lifted—at the beginning *and* end of the lift;
- The vertical heightsat which the lift starts and ends;
- Whether the worker has to twisthis body to perform the lift;
- Characteristics of the object, such as size, shape, texture and whether it has handles or other easy-to-grasp features;
- How many timesper hour and/or per day the lifts are performed;
- The total length of time the lifting task is performed per shift/day; and
- The strength, stamina, health and skill of the worker doing

the lifting.

You should also consider:

- The speed with which materials must be moved, such as when the materials must be placed on a moving conveyor belt or assembly line;
- The distance and terrain over which they'll be moved; and
- Whether the materials have a changing center of gravity, such as a container of fluid.

Step #3: Adapt Materials, if Possible

If you determine that manually moving the materials does pose safety risks to workers, try to adapt the materials to eliminate or reduce that risk. Examples:

- Dividing materials into smaller, lighter loads;
- Placing materials into smaller, more numerous containers; and
- Reducing the distance materials must be moved.

Step #4: Develop Safe Methods for Moving Materials

If adapting the materials doesn't eliminate safety hazards, you'll need to develop safe methods for lifting and moving them. For example, for materials that are particularly heavy and which can't be lightened, require at least 2 workers to always move them. In addition, you can provide and require workers to use handholds for certain materials. And develop a safe lifting technique that all workers should use. Make sure you put these safe work practices in writing.

Step #5: Train Workers on Safe Moving Methods

Provide training on various aspects of materials handling, including manual handling of materials, and on MSIs, such as identification of the factors that could lead to an MSI. This training should be included in your company's general materials handling program and cover, at a minimum:

- Manual materials handling hazards, including the risks of

developing MSIs;
- MSIs, including what they are, early signs and symptoms and how to avoid them; and
- Safe work procedures for the manual lifting and moving of materials.

As with all safety training, document the manual materials handling training provided to workers and take steps to verify that this training was effective, such as by quizzing workers or making them demonstrate the safe lifting techniques you've taught them.