Reducing Injuries Through Job Safety Analysis

Management teams within the manufacturing sector are frequently faced with how to address back and upper extremity strains related to manual material handling and repetitive motion.

The job safety analysis (JSA) is a tool that can identify potential ergonomic risk factors so that options for eliminating or significantly reducing them can be completed.

Commonly used to identify various types of hazards, using the JSA to target the underlying causes of ergonomically-related injuries offers the leadership team a systematic approach to reducing these injuries and their associated loss costs.

Benefits of the Job Safety Analysis (JSA)
Once completed, there are many benefits that can be realized through the JSA development and implementation process, including:

- Teaches supervisors and employees how to perform job tasks correctly
- Helps determine cause of an accident after one has occurred
- Improves production efficiency by identifying incorrect procedures
- Increases employee involvement
- Enhances communication between management and employees regarding safety concerns
- Reduces employee injuries and lost work days
- Lowers workers’ compensation loss costs

When to Perform a Job Safety Analysis
The following factors should be considered when assigning priority for a JSA:

- **Accident frequency and severity**: Jobs where accidents occur frequently or where they occur infrequently but result in disabling injuries.
- **Potential for severe injuries or illness**: The consequences of an accident, hazardous condition or exposure to harmful substance are potentially severe.
- **Newly established jobs**: Due to lack of experience in these jobs, hazards may not be evident or anticipated.
- **Modified jobs**: New hazards may be associated with changes in job procedures.
- **Infrequently performed jobs**: Workers may be at greater risk when undertaking non-routine jobs and a JSA provides a means of reviewing hazards.

The 4 Basic Steps of a Job Safety Analysis

- Select the job to be analyzed
- Break the job down into a sequence of steps
- Identify potential hazards in each step
- Determine preventative measures to overcome these hazards.

How to Identify Potential Hazards
Once a sequence of steps for each job is established, potential hazards must be identified at each step. To help identify potential hazards, the reviewer may use questions such as:

- Can any body part get caught in or between objects?
• Do tools, machines or equipment present hazards?
• Can the worker make harmful contact with moving objects?
• Can the worker slip, trip or fall?
• Can the worker suffer strain from lifting, pushing or pulling?
• Is the worker exposed to extreme heat or cold?
• Is excessive noise or vibration a problem?
• Is there a danger from falling objects?
• Is lighting a problem?
• Can weather conditions affect safety?
• Is harmful radiation a possibility?
• Can contact be made with hot, toxic or caustic substances?
• Are there dusts, fumes, mists or vapors in the air?

References