## **Insurance Companies—Advocates for Reducing Workplace Injuries**

BY JEAN FEINGOLD

resource for reducing injuries associated with manual material handling (MMH) your company may have overlooked is your insurance carrier. Many insurance companies offer their policyholders no cost programs designed to analyze MMH tasks and develop solutions to minimize worker stress while saving money for their employers.

## Motion is Money®

Motion is Money® from CNA begins when Brian Roberts, director, manufacturing & ergonomics, risk control, talks with company officials who are interested in saving money. After he guarantees savings of at least five percent, they let him spend time in their facility.

Roberts observes workers on one line or doing one task for about 30 minutes. "How many times do you think someone bends while loading boxes?" he asks. "It's about 50,000 times annually per worker. I take excessive bending, walking and reaching and I turn it into dollars. We're never going to eliminate those movements, but we can reduce them. Sometimes we get 100 percent reduction if we put in the right kind of equipment. In addition to reducing the risk of injury to the worker, this increases production efficiency." He said risk can be reduced without adding equipment by changing work methods, but the risk reduction is less.

Roberts' goal is to understand how tasks interface with humans and to show management how changing that interface benefits the bottom line. This is different from some safety programs, which can take 12 to 18 months to get results—with management losing interest before those benefits are seen. "If you just look at one task, change it by adding equipment and get 10 percent in production improvement results right away, management is more focused," he said.

CNA provides education for managers and supervisors covering physiology and biomechanics of movement and the importance of measuring what workers do. Management may not understand how safety and ergonomics relate to their business because they have always done things a certain way and are profitable. "We try to sell the bottom line value of increased productivity with the byproduct being safety," Roberts explained.

Combining productivity increases and reduction in workers' compensation injuries, Roberts has helped companies

save from \$100 to \$1 million per MMH task. "We have reduced wasteful body motion," he said. "We have less fatigue, which is huge for the aging workforce since it affects productivity." Other benefits are increased throughput, fewer employee errors, enhanced quality, enhanced efficiencies and improved customer satisfaction.

Perhaps the biggest benefit is turnover reduction. When jobs are too hard physically, workers quit. One company reduced its annual turnover from 124 percent to 14 percent after installing material handling equipment so workers could pick up parts without bending down or reaching overhead. This added \$586,000 to the company's annual bottom line.

## A more technologically oriented approach

In addition to the traditional onsite service approach, another way policyholders of MEMIC Indemnity Company can request help is by using its eErgo online service. They fill out a form including key task data points like basic workflow, weights and frequency of handling and then supply a short video of the task, explained director of loss control Karl Siegfried. The





MEMIC ergonomics team analyzes the task and supplies recommendations for improvement. For more detailed analysis, a MEMIC Ergonomist visits the site to collect data. "This includes meeting with area supervisors/engineers to understand the workflow, our policyholder safety contact and, most importantly, employees who are performing the task," he said.

MEMIC uses several high-tech analytical tools to examine MMH tasks. They include the Lumbar Motion Monitor for complex tasks, the Revised NIOSH Lifting Guidelines, 2-D Static Lift Model, the University of Michigan 3D Static Strength Prediction Program, Rapid Entire Body Assessment, the Rapid Upper Body Assessment and the Liberty Mutual Tables for push/ pull tasks. They have found using scientific measurements provides the greatest amount of actionable/objective data for employers to make work process improvements. For example, using these tools can develop an objective measurement to show that by raising a product off the floor to a better working height, the recommended weight limit will increase and the compressive forces on the worker's low back will decrease. "This makes the employee more efficient while reducing the risk of injury," Siegfried noted. Once employers agree to make changes (which usually happens), MEMIC offers on-site training for affected workers. This training incorporates the work site analysis so employees have insight into the changes, which increases their buy-in, along with steps they can take to continue working in a safe, ergonomic manner.

"Engineering modifications have had a positive impact on injuries and Workers' Compensation claims," said Siegfried. With long-term clients, MEMIC's quantitative ergonomic analysis to change the way tasks are done has prevented injuries that would have occurred. "We can clearly demonstrate the decrease in risk for future employees," he said. "This is like putting money in the bank. Anecdotal feedback includes improved employee morale, flexibility of supervisors to assign more people to complete the task safely and employees who are happy they are not as tired at the end of the day." Your insurance company may be a great untapped resource to reduce costs and improve productivity.

For more information on manual material handling best practices, visit MHI's Ergonomic Assist Systems & Equipment (EASE) Product Group at MHI.org/EASE.

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