Compactors and balers are commonly used in industries such as wholesale, retail, manufacturing, garbage, and recycling facilities to compress waste into smaller and more manageable loads. Using powered rams, waste materials such as garbage, paper, cardboard, cotton, metals, and plastic can be compressed and packed into containers or baled for transport. Workers can get seriously injured or killed, if they reach inside or fall into a compactor or baler.

It is critical to receive the proper training on the use of the compactor or the baler in your work area. Follow all manufacturers’ recommendations on the maintenance, inspection, and use of the machine. Do not overload the machine beyond the recommended capacity. Workers under the age of 18 should not be allowed to operate a compactor or baler.

Know how the machine you use operates. Does it operate manually or on semiautomatic or automatic cycles? Does the machine have capacity sensors and when are they activated? With manual devices the operator controls the ram; semiautomatic devices turn on and cycle only after a worker hits the switch; while automatic devices trigger the compression ram based on a capacity sensor. Be familiar with these features, because they tell you when and how the machine will activate, so you can avoid the powered ram.

Know all the safety devices on compactors and balers. Guards, conveyors, remote chutes, control switches, and safety interlocks for doors and ports are intended to keep you out of the compression chamber and harm’s way. Do not circumvent safety features in order to perform maintenance, clear a jam, or ease the loading process. Use access ladders and platforms or walk around moving conveyers. Use safe access points and consider fall protection, if you are working over gravity-fed chutes or chambers. Watch out for the baling materials, because they are under pressure and can snap if they are overloaded.

Always follow safe work practices for your equipment and all job tasks. Clear the area and account for all workers when you start up a compactor or baler. Never reach into or enter a baler or compactor unless it has been de-energized. Always use lockout/blockout procedures before you perform any type of maintenance or inspections. Jams are a common occurrence where there are multiple processes (conveyor, compactor, baler). Employees should always keep in mind that turning off one of these items will not turn off the others.

These days, people are living longer and working past traditional retirement years. They may be working longer due to financial need, to avoid boredom, or because they enjoy their work, the trend of an older workforce will continue. However as a result of age, these workers will experience physical changes such as diminished hearing, vision, muscle strength, balance reaction time that can affect job performance. Employers should assess their work processes to make sure these valued workers can continue to perform their jobs safely.

Many employees will agree that older workers are generally more experienced, loyal, and reliable with lower absenteeism and turnover rates. Their wisdom and experience make them good leaders and decision makers. Injuries for older workers also tend to be lower because they’re aware of the risks and thus compensate by following safety procedures and working with caution. However, if they do get injured they may require longer recovery times.

Good risk management practices such as job hazard analyses, ergonomics, and wellness programs may help to increase safety for all workers including older ones.
FROM OUR EXPERT

Minimizing Workplace Exposure to Nanomaterials

Nanotechnology involves the manipulation of structures with at least one dimension in the range of 1-100 nanometers (nm). A nanometer is one-billionth the size of a meter. To put it in perspective, the diameter of a strand of DNA is about two nm and a strand of hair is about 80,000 nm. Due to their unique properties, nanomaterials are used in an increasing number of industrial and biomedical applications. Although health effects in workers are poorly understood, studies indicate exposure to nanoparticles may cause a variety of adverse health effects, including pulmonary inflammation and interstitial fibrosis.

Workplace tasks of particular concern are those that may result in inhalation of nanoparticles. However workers should also be protected against activities that could result in skin penetration or ingestion of nanoparticles. The National Institute of Occupational Safety and Health (NIOSH) is tasked with providing occupational health research. Their most recent guidance document on nanotechnology, Approaches to Safe Nanotechnology: Managing the Health and Safety Concerns Associated with Engineered Nanomaterials, provides the following recommended practices:

**Engineering Controls:** If substitution or elimination of the hazard is not possible, isolating the generation source from the worker or the use of local exhaust ventilation is recommended. Handling small quantities can be controlled using low-flow vented workstations and small glove box chambers. Dust collection systems should have a HEPA (high efficiency particulate air) filter, coupled with well-designed filter housings.

**Work practices:** Educate workers on the safe handling of engineered nanomaterials, including using hand washing facilities before eating, smoking, or leaving the worksite. Store dispersible nanomaterials in tightly sealed containers whenever possible. Clean work areas at the end of each work shift, at a minimum, using either a HEPA-filtered vacuum cleaner or wet wiping methods. Clean liquid spills by applying absorbent materials/liquid traps. Depending on exposures, provide a buffer or decontamination area and facilities for showering and changing clothes to prevent the inadvertent contamination of other areas, as well as worker’s vehicles and homes.

**Protective Clothing:** Protective equipment, clothing, and gloves should be used to minimize dermal exposure, with particular attention given to preventing exposure of nanomaterials to abraded or lacerated skin.

**Respiratory Protection:** Currently, no exposure limits for nanomaterials exist which may trigger the use of respiratory protection. If there is concern that worker exposure to airborne nanomaterials remains a concern after instituting control measures, a NIOSH-certified particulate respirator should provide expected levels of protection if properly selected and fit tested as part of a complete respiratory protection program. Table 8-2 in the NIOSH guidance document provides a list of respirators recommended for protection against nanoparticles.


— Bonnie L. Sander MS, CIH

Safety – All Ages Admitted continued from page 1

Slip and fall injuries can be reduced by installing slip-resistant flooring and handrails or by maintaining a clean and clutter free work area. Workplace lighting can be upgraded to allow workers to see their job tasks and each other more clearly. Noise levels can be monitored and tools or machinery with noise dampeners can be purchased. Communication methods may also need evaluation because it may be more difficult for older workers to hear safety commands, resulting in hazardous mistakes.

Employers can also examine work tasks to decide the degree of physical exertion involved, and then assign the tasks according to worker ability. Repetitive work such as lifting, pulling, twisting, squatting, stooping or kneeling should be minimized for older workers. Mechanical lifting aids, reduced loads or task reassignment are safe alternatives. Older workers should be encouraged to perform tasks at the correct height and proximity to their bodies and not above the shoulder on ladders or at excessive heights.

Maintaining a healthy diet, exercise, and strength training programs to build up bone and muscle mass can help to reduce the effects of aging. Also, older workers are affected faster by heat and cold, they should be prepared with layers of clothing. If they are unable to safely perform certain job tasks anymore, they must communicate with their supervisor.
Too Close for Comfort

In the workplace a “close call” or accident without an injury is likely to be shrugged off or forgotten. However it is not wise to brush off an accident that doesn’t harm or damage. When a “close call” occurs, it should be cause for concern that something is wrong and has the possibility of occurring again while causing damage, injury, or even death.

There are typically several contributing factors for every accident, many of which can be controlled. In order to prevent the reoccurrence of an accident an examination be conducted. By investigating the root causes, steps can be taken to reduce and possibly eliminate the hazards and improve the work system.

There can be multiple causes for an accident:
- Equipment – unguarded machinery
- Environment – poor lighting or noise level
- People – procedures not understood or followed
- Management – shortcuts were allowed

Examining all the facts to find out what is missing and not making hasty judgments provides analysis of the underlying cause. An immediate cause could be an unsafe condition such as a mechanical failure or unsafe action by an employee. The underlying cause could be poor machine maintenance, a missing guard, a crowded work area or a lack of training.

Your supervisor should be notified of all incidents. Once an investigation is completed, preventative measures should be put in place to avert an accident from reoccurring. Measures may include engineering controls, administrative controls, additional training or increased communication between management and workers.

Workers should perform daily inspections of the work area for unsafe conditions or unsafe actions, and if any are found – they should be reported to the supervisor. Steps should be taken to eliminate hazards as soon as they are discovered. Investigate those close calls, no matter how minor they may seem at the time.

Prevención de accidentes

Es probable que se ignore o se olvide un accidente que casi ocurra o un accidente sin lesiones en el sitio de trabajo. Sin embargo, no es aconsejable ignorar un accidente que no cause lesiones o daños. Cuando ocurre un “casi accidente”, debiera ser motivo de preocupación el hecho de que algo está mal y que tiene la probabilidad de volver a ocurrir, e incluso causar daños, lesiones o la muerte.

Típicamente, hay varios factores contribuyentes en cada accidente, muchos de los cuales pueden ser controlados. A fin de prevenir la repetición de un accidente es necesario realizar un análisis de los hechos. Al investigar las causas fundamentales, se pueden tomar medidas para reducir y probablemente eliminar los peligros y mejorar el sistema de trabajo.

Puede haber múltiples causas para un accidente:
- Equipo – maquinaria no protegida
- Entorno – iluminación defectuosa o nivel de ruido
- Personas – procedimientos no entendidos o incumplimiento de los mismos
- Administración – se permitió el uso de atajos

Analizar todos los hechos para determinar lo que falta y no hacer juicios apresurados proporciona el análisis de la causa subyacente. Una causa inmediata podría ser una condición insegura, tal como una falla mecánica o una acción insegura por parte de un empleado. La causa subyacente podría ser el mantenimiento deficiente de la máquina, una guarda faltante, un área de trabajo saturada de personas o falta de capacitación.

Todos los incidentes deben ser notificados al supervisor. Al terminar la investigación, las medidas preventivas deberán implementarse para impedir que un accidente vuelva a ocurrir. Las medidas pueden incluir controles de ingeniería, controles administrativos, capacitación adicional o mayor comunicación entre la administración y los trabajadores.

Los trabajadores deberán realizar inspecciones diarias del área de trabajo para detectar condiciones inseguras o acciones inseguras, y si se encuentra alguna, ésta deberá ser reportada al supervisor. Se debe tomar pasos para eliminar los peligros tan pronto como estos sean descubiertos. Investigue los accidentes que casi ocurren, sin importar cuán leves éstos puedan parecer en ese momento.
Multilingual Training Guide

The ethnic diversity in today’s workplace has changed the set of dynamics and corresponding challenges for employers, especially in regards to communicating necessary safety and health information. Employers cannot simply assume that workers understand the dangers of their work environment or that they are aware of emergency response procedures. And, because California law requires employers to ensure that any safety or health information that is given is understood, employers may need to provide the training information in a language other than English.

To assist in this effort, multilingual training material is available from various sources including State Fund (www.statefundca.com) and Cal/OSHA. Workplace health and safety information in 17 languages can also be accessed at http://www.dir.ca.gov/chswc/MultilingualGuide/MultilingualGuideMain.html.

State Fund believes that although individuals have preferences in the way messages are delivered and what language is spoken, safety and health issues should not be left to interpretation.

Employer Education Series

State Fund continues to promote community educational outreach by increasing the quantity and frequency of employer seminars. These seminars are produced and sponsored by State Fund and are open to State Fund policyholders. The seminar topics cover all aspects of worker’s compensation and are offered statewide.

As part of State Fund’s Employer Education Series, the local State Fund Loss Control departments offer safety seminars dedicated to loss prevention. They feature safety training targeted to specific industries and safety topics of interest to California employers. Various programs in the series are developed in conjunction with State Fund insured Group Programs and external affiliates and partners. Some of these partners are occupational safety and health providers such as Cal/OSHA Consultation Service, the Department of Health Services, and the University of California.

The goal of State Fund’s Employer Education Series is to present valuable information from recognized safety and health experts to enable employers to reduce the frequency and severity of workplace injuries, facilitate regulatory compliance, and increase business profits.

The program venues provide the opportunity for attendees to have their workplace safety questions immediately and personally answered by industry experts. The typically half-day seminars are usually held at regional State Fund offices. To learn what programs are scheduled in your area, visit www.statefundca.com and click on Seminars.

Reporting Work-Related Injuries

State Fund’s Claims Reporting Center (1-888-222-3211) is available 24 hours a day, 7 days a week for policyholders to report injuries as soon as they occur. Agents will do the necessary paperwork to get the claim started and refer the injured to the designated physician or provider.

Within 8 hours of any serious illness or injury (requiring hospitalization over 24 hours, other than for medical observation or where there is permanent employee disfigurement) or death occurring in the workplace or in connection with employment, employers must report the incident to the Division of Occupational Safety and Health.