WINTER 2022

RISK manager

INSIDE...

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Safety Signage Planning and Labeling PT.1

INTERIOR SIGNAGE

By Jake Ruziecki

When you think of the color red, what thought first comes to mind? Most of us likely associate the words "stop" or "danger" with this color. The recognition of these visual cues, such as the color or shape of a sign, helps improve your response time to possible hazards. This is why it's no surprise that much of the safety signage in the workplace is either red or yellow as required by the Occupational Safety and Health Administration and recommended by the American National Standard Institute. It is important you consider safety signage planning and labeling within your school to prevent accidents and improve readiness in an emergency.

Risks

Educational buildings each have specific and unique needs just like buildings in all other industries. This is a great reminder to have hazard inspection checklists specific to each building. When you begin planning for routine building inspections, consider the signage and labeling necessary to identify hazardous areas and vital emergency equipment such as:

- Fire Protection Equipment.
- Chemical Storage.
- Industrial and Mechanical Equipment.
- First Aid Stations and Equipment.
- Emergency Response Plans.

Best Practices/Actionable Items

Once you've identified hazardous areas, critical emergency equipment and other personal protective equipment, you can find which standard(s) may apply to these areas, and what your responsibilities are as the property owner.

- **Fire protection equipment and fire hazards** are marked red in accordance with OSHA standards. This includes the common ABC portable fire extinguisher, gasoline cannisters and emergency switches. If you have a difficult time identifying fire extinguisher locations due to storage or poor placement, consider having your fire protection contractor relocate the extinguisher somewhere more accessible and with additional signage.
- **Chemical storage** such as cleaning supplies and chemistry lab chemicals must all have precautionary labeling on each bottle. This helps avoid mix-ups when refilling cleaning supplies or when replacing chemicals in like groups such as acids, flammables and poisons. Try to avoid leaving access points to storage closets and storage cabinets unlabeled. This helps notify staff or visitors of the hazards within. Further detailed information on chemicals should be provided and available in the Safety Data Sheet (SDS) binder.
- **Industrial and mechanical equipment** including electrical panels, boilers, industrial equipment and pottery kilns all require a safe operating space clear of any obstructions to reduce the risk of fire and injury. Not only should these areas have signage explaining the electrical, fire or machine hazards present within these rooms, best practice would be to provide floor marking tape to label pathways through these areas and around each piece of equipment to identify clearance requirements.
- **First aid stations and equipment** such as prepackaged kits, emergency eyewash stations, AEDs and other health and safety information should be provided not only in the nurse's office or a central location, but in other areas such as chemistry labs, art classes, vocational education, kitchens and science labs where the first aid equipment can be tailored for the specific hazards in each room. First aid stations, AED stations and eyewash stations are required to be located in readily accessible areas, and signage for these areas should be in green and white. Since first aid equipment isn't necessary in every room, instruction and training should be provided for all staff on how to quickly identify first aid equipment and how to handle common injuries.
- **Emergency response plans** should be located and labeled in every occupied room of each of your buildings. This should include emergency egress plans, alarm locations, emergency phones, fire extinguisher locations (if trained to do so) and any other building-specific emergency equipment as required by the National Fire Protection Association. Make sure these plans are revised any time there may be a change in building layout, ongoing construction, or if any items mentioned are not included.

If you can't identify emergency exits, first aid stations, AED stations or other hazardous areas that may require urgent access from any point in a hallway, consider installing projecting signage overhead. Be sure that the projecting signage does not obstruct other signage or critical emergency systems such as emergency lighting or exit signs. When selecting new or replacement signage or labeling, be sure to consider low-vision staff, faculty, students and visitors to ensure everyone is provided with information on the hazards that may be present in their environment. During development of new or replacement signage, also refer to your local code office for further requirements for your area.

Chemical toxicity and skin exposure prevention

By Mark Nease

The largest organ in the human body is the skin. Your skin's surface can become injured with a common ailment called contact dermatitis if certain toxic chemicals you use on the job make contact with it. Certain man-made chemicals that you may come in contact with can also become absorbed through your skin and enter into your bloodstream, affecting internal organs. To reduce the risk of contact dermatitis or a skin absorption illness, you should become familiar with the risks of the chemicals you use on the job and the techniques to prevent an exposure event while handling those chemicals.

Risks

When handling a toxic chemical, you may be at risk to a bodily exposure resulting in harm to your body.

- Just as some medications can get absorbed through your skin to enter your bloodstream, so can certain toxic chemicals, affecting your central nervous system or other organs.
- Your skin can also react to certain man-made products, such as concrete mixes, pesticides, solvents, oils and bleach, resulting in contact dermatitis and/or a chemical burn. The severity of the skin reaction can be based on many variables, including the location on your body and the thickness of your skin at that location, the length of exposure (immediately wash yourself versus allow saturated clothes to "soak" into your skin for many hours) and the concentration of the chemical during the exposure event.
- Cuts and skin abrasions are a quick avenue for certain toxic chemicals to enter the body.

Best Practices/Actionable Items

- **Training:** Staff should receive Hazard Communication training, including how to read a product's Safety Data Sheet (SDS), where to access them, how to recognize and heed the information on a product's container label and how to understand and implement protective controls.
- **Purchasing:** Staff should purchase products that fulfill the desired outcome, but have the least risk of a toxicological exposure. For example, choose to purchase a water-based non-toxic paint over a more toxic solvent-based paint. Note that a great resource for determining the toxicity of a product is Section #11 of the product's SDS.
- **Hierarchy of Controls:** Staff should review the hierarchy of controls' pyramid when choosing methods to reduce the risk of an occupational exposure to those who will use the products. Section #8 of the SDS titled "Exposure Controls and Personal Protective Equipment" is a good resource for this information.

  – **Elimination Controls:** Is the process involving the use of the toxic product necessary or can you eliminate the process altogether? An example could be eliminating the need to have staff handle gasoline and motor oil by purchasing battery operated grounds' equipment.

  – **Substitution Controls:** Can you substitute a product that Section #11 of the SDS states can become absorbed in the skin and cause illness with a product that will not?

  – **Engineering Controls:** Can you isolate the users of the product from the hazard? For example, rather than using a manual parts washer in your maintenance shop, use an automatic parts washer such as an ultrasonic cleaner.

  – **Administrative Controls:** Have supervisors trained their employees on the safe use of the products? Do supervisors hold staff accountable to follow safe protocols?

  – **PPE Controls:** Select the best Personal Protective Equipment to protect users from making direct contact with the toxic chemical.
- **Exposure Event and First Aid:** Staff should receive training on what could happen if there is an exposure event and the necessary first aid protocols to be administered. Section #4 of the product's SDS specifies first aid measures.

Think about all the different products you use, whether on or off the job. Before you grab that next bottle of glass cleaner, bleach or motor oil, why not take some time to learn about the toxicity of those substances? Take some time to familiarize yourself with the possible hazardous effects of those chemicals so you can follow best practices in preventing a skin contact injury or skin absorption-related illness.

Toxicity questions?
Ask our experts at
cmregent.com/risk-control/ask/

CRAMPED UP

Physical Wellness and Strain Prevention By Edgar Boord

Sitting or standing for too long, working in awkward positions, lifting heavy materials, and reaching for that item on the top shelf all carry potential for a pinched nerve or strain injury. Tasks that carry this potential can affect anyone. Strain injuries can often be severe with intense pain and ongoing medical or chiropractic treatment, holding you back from your daily life.

Outside of proper lifting and making sure you have proper posture all day, what else can be done to reduce your chances of being out of commission for an indefinite amount of time? Routine exercise and stretching is most likely the answer most folks don't want to hear, but you may want to consider it.

Risks

Static seated or standing positions can be just as damaging to the body as heavy lifting tasks or reaching. In addition, static positions with poor posture and without stretch breaks can greatly increase the likelihood of an injury, even when performing a simple lifting task. Below are several examples of injury risks:

- Back and other strains from stiff muscles or overexertion.
- Neck strains from improper lifting or poor posture.
- Chronic musculoskeletal disorders from static positions or repetitive motions with improper ergonomics.
- Lower back issues such as degrading discs or sciatic issues from daily static positions.
- General daily aches and pains from poor posture and overworked muscle groups.

Best Practices/Actionable Items

As we all know, exercise tones the muscles often used to perform physical tasks, while stretch breaks and pre-task stretching will increase flexibility and loosen up muscles to greatly reduce your chances for injury.

To start, let's focus on stretching, since that should take place before exercise or physical tasks. Stretching doesn't need to be a lengthy or arduous task but can actually be quick and refreshing. Before the start of your workday, try to stretch out each part of your body. This includes the legs, lower/upper back, chest and shoulders, neck and even your forearm and wrists if you work with your hands or on a computer.

During your workday, be sure to take quick breaks to break up static positions. If sitting, stand up for a minute and stretch out, and do the opposite if you stand for extended periods of time. Don't forget to also stretch before any heavy lifting or other physically demanding task. You can find a diagram below demonstrating simple stretches that can be done at any time to stay loose.

Exercise, although a bit more of an extensive task, can have lasting benefits. You don't have to be a body builder, but core and supporting muscles are incredibly important to the body's ability to handle strenuous activity and lifting. Fifteen to 30 minutes of exercise a few days a week or more is all that is needed to enhance and maintain your physical capabilities. Here are several parts of the body to exercise and the associated benefits:

- Core muscles such as the abdominals and lower back can help support your body while in constant static positions, like sitting or standing.

- The calves, upper legs and core provide added support for frequent walking and moving around.
- Core muscles, along with the upper legs and shoulders, are crucial for lifting, pushing/pulling and moving tasks; however, all muscle groups work together for strenuous tasks.

One way to combine exercise and stretching/flexibility would be with a yoga routine. For some, yoga may have a perceived stigma that surrounds it; however, it can be an excellent way to not only work on all muscle groups, but also improve cardiovascular health. Not sure how to get started? A simple internet search can yield results for any type of exercise, stretch or other routine you may be looking for. Before beginning any exercise regimen, be sure to consult your doctor to make sure you choose the one that's right for you.

In summary, strains and other injuries can impact you and your family's daily life, so it is important to minimize the risks. Regardless of what type of exercise routines you decide on, or how committed you would like to be, starting off simple will allow you to build up to a healthier, more capable you. If you take care of your body, it will take care of you!

STRETCHING at WORK

When stretching, you should never feel pain and should not push the stretch to a painful point. Don't forget to breathe while stretching, and remember, stretching should feel good!

Sit with both feet on the floor. Slowly bend forward dropping your head and arms to the floor. Hold for 5 – 10 seconds. Repeat 3 – 5 times.

Grasp your shin. Lift the leg off the floor. Bend forward (curling your back), and reach your nose to your knee. Repeat with other leg.

Sit with one leg across the other. Place your arm or elbow on the outside of the crossed leg. Gently apply pressure, while looking the opposite way. Repeat with other leg.

Interlace fingers. With palms facing out, straighten arms out to the front of you. Hold for 5 – 10 seconds. Repeat 3 – 5 times.

Stand arm's length from a wall or other support, feet facing forward. Place right foot forward and keep the left leg straight and the heel on the ground. Lean your body towards the wall until you feel a stretch in the left calf. Hold for 5 – 10 seconds. Repeat 3 - 5 times. Repeat with other side.

Sit or stand upright. Slowly drop your head to the left, trying to touch your left ear to your left shoulder. Do not elevate your shoulder to your ear; keep your shoulder in a relaxed position. Hold for 5 – 10 seconds. Repeat 3 – 5 times. Repeat on other side.

Interlace your fingers and lift your arms over your head, keeping the elbows straight. Press arms as far back as you can. To stretch your sides, slowly lean to the left and then to the right. In a similar way, you can also bring your arms in front of your body, or behind to stretch the shoulder blades and chest.

Fingers interlaced behind your back. Slowly turn your elbows outward while straightening your arms. Hold for 5 – 10 seconds. Repeat 3 – 5 times.

Hold left elbow with right hand. Gently pull elbow behind head until you feel a stretch. Hold for 5 – 10 seconds. Repeat 3 – 5 times. Repeat with other arm.

Raise your shoulders towards your ears until you feel a slight tension in your neck and shoulders. Hold for 5 – 10 seconds. Slowly release your shoulders downward to their normal position. Repeat 3 – 5 times.

Interlace fingers. Turn palm upwards above your head as you straighten your arms. Stretch and hold for 5 – 10 seconds. Repeat 3 – 5 times.

Contracted Supervision & Coordination

OF WORK-RELATED INJURIES

By Kyle Stewart

The use of contracted supervision by schools to manage the daily oversight of support department operations is becoming more prevalent. These personnel may include custodial, food services, maintenance and paraprofessionals. Contracted supervision of support department operations may exclusively include school employees and/or a combination of non-school employee(s) and school employee(s).

The scenario in which contracted supervision involves both non-school and school employees arises when support departmental operations are outsourced to a third-party contractor. Existing support staff are retained as school employees, but their immediate supervisor is employed by the third-party contractor.

It is recommended a contracted supervision agreement outline established procedures to define accountability following work-related injuries involving school employees, disciplinary procedures (if required) and synchronization with your school's workplace safety protocols and procedures.

BLOG

Learn more about contracting parents for transportation support at **cmregent.com/blog/**.

Risks

In the event a school employee working under the daily oversight of a contracted supervisor sustains a work-related injury, procedures should be implemented to address the following:

- School employee is required to report work-related injury to their employer to initiate submission of a workers' compensation claim. Is a procedure in place to also notify the contracted supervisor of the work-related injury?
- For school employees who work under a contracted supervision contractor, who is responsible for conducting an accident investigation to document an injury involving a school employee?

  – Is the contracted supervision contractor responsible to initiate the accident investigation or will school administrators conduct the accident investigation because the injury is compensable under the school's workers' compensation policy?
- Does the contracted supervision contractor have the authority to implement corrective actions and/or preventative measures to prevent a recurrence of work-related injuries involving a school employee?
- If the school employee failed to follow safe work practices or an implemented policy, does the contracted supervision contractor have the authority to reprimand or issue disciplinary actions against the school employee?
- Which entity, the school or contracted supervision contractor, is responsible for providing safety awareness training to school employees to prevent work-related injuries?

Best Practices/Actionable Items

- Develop and implement a protocol to ensure the contracted supervisor is notified of work-related injuries involving school employees working under their daily oversight.
- Define which entity is responsible to conduct an accident investigation and complete an accident investigation report.

  – Preferably, it is recommended the contracted supervision contractor conduct the accident investigation because the school employee works under their daily oversight. This allows work task modifications applicable to school employees and non-school staff to be implemented in a timely manner.
- A procedure should be in place that permits coordination between the school and contracted supervision contractor to review/discuss the accident investigation report and corrective actions/preventative measures implemented to prevent a recurrence of injury.

  – The school workplace safety committee should also be notified of the work-related injury and provided an opportunity to review supporting documentation to ensure adequate corrective actions and/or preventative measures have been implemented.
- Although the support department employee is a school employee, it is suggested the contracted supervision contractor be provided the authority to implement work task modifications and preventative measures to reduce work-related injuries involving school employees working under their daily oversight.
- It is recommended the agreement with the contracted supervision contractor outline which entity is responsible to reprimand or issue disciplinary action against the school employee, where applicable.
- The school should ensure adequate safety awareness training applicable to the personnel classification is provided as required by federal, state and local statutes.

  – The agreement with the contracted supervision contractor should delineate whether the school or the contracted supervision contractor is responsible to provide safety awareness and work task training to school employees working under the daily oversight of a contracted supervision contractor.
- The school's legal counsel should be consulted to discuss, review and provide guidance prior to engaging in an agreement/contract with a contracted supervision contractor.

Compressed Gas Cylinder Safety

By Derek Neubauer

Compressed gas cylinders are present in most school buildings. With a rising need for properly trained welders, many technical schools have seen increased interest and enrollment in welding programs. But, even if you don't have a welding program, there is a good chance your buildings have gas cylinders in your technical education shops or maintenance areas. If building construction is in progress, contractors may also have them on hand.

Risks

Gas cylinders are responsible for a wide range of injuries and accidents. Potential hazards are struck by, fire, explosions, corrosive or inert gases. Struck by are the most common injury, typically caused by the mishandling of the cylinders. They can fall on body parts, causing significant harm. Also, the cylinder can possibly turn into a missile if the cylinder valve is broken off, which can result in property damage as well as injuries. Fires can occur when the gases inside cylinders are introduced to a heat source. Inert gas is the most difficult hazard to detect. This would occur when a leak allows the gas inside the cylinder to create an oxygen-deficient atmosphere. If the gas inside the cylinder is toxic, this will create a poisonous atmosphere for anyone entering that area.

Best Practices/Actionable Items

Below are best practices your organization can use when observing the area where you store and use gas cylinders:

- Ensure all unused cylinders have valves completely closed and valve caps are secured.
- Secure cylinders with a substantial chain, straps or bracket them to a fixed surface.
- Immediately remove any cylinder from the storage area if the valve or body of the cylinder has any corrosion or any evidence of a leak.
- Store cylinders away from direct sunlight, heat or flames.
- Cylinders should be clearly marked with large letters.
- Empty cylinders should be marked as EMPTY, stored upright, closed and with valve caps in place.
- Keep up with inventory and attempt to reduce the number of cylinders on hand to only what will be needed.

Oxygen Specific Requirements (O2/Gaseous Oxygen)

- Should not be stored within 20 feet of combustible material, including oil, grease, reserve acetylene cylinders or other fuel gas cylinders.
- O2 and acetylene cylinders can be secured to a welding cart with a regulator and hoses when used regularly. If the carts are not used several times a week, the regulators should be removed and the cylinders property stored.
- Do not use synthetic straps to secure O2 cylinders.

Hopefully your organization has an inventory of the cylinders on-site. If you don't, now is the best time to gather that information. Then, go through the cylinder storage areas to take these simple tips to prevent the possibility of a large range of hazards, potential injuries and property loss.

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