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"Safety Comes First" Case Western Reserve University Environmental Health and Safety

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Occupational Heat Stress Regulations

As spring turns to summer and the weather gets warmer, it's important for employers to start thinking about how to reduce heat stress hazards in the workplace.

Currently, there are no specific federal requirements pertaining to heat stress. However, the General Duty Clause of the Occupational Safety and Health (OSH) Act of 1970 requires employers to provide their employees with a work environment that's "free from recognized hazards that are causing or are likely to cause death or serious physical harm." If a workplace presents hazards that could result in heat illness or injury, the General Duty Clause may apply.

A federal standard addressing occupational heat stress is on the horizon. In the meantime, to control workplace heat hazards, the Occupational Safety and Health Administration (OSHA) has launched a National Emphasis Program (NEP) for indoor and outdoor heat-related hazards that involves an increase in inspections and enforcement measures, an emphasis on outreach and education resources, and targeting certain high-risk industries for inspections and enforcement measures and corresponding North American Industry Classification System (NAICS) codes that are targeted by OSHA's NEP as likely to have heat-related hazards are listed under Appendix A of OSHA's NEP Instruction directive. Some of the industries included on the list are farming, manufacturing, construction, and transportation.

Programmed inspections under the NEP will occur on any day the National Weather Service (NWS) has announced a heat warning or advisory for the applicable local area. OSHA defines a heat priority day as a day when the heat index is expected to reach 80 degrees Fahrenheit or greater.

Governing laws and regulations: OSH Act, Section 5(a)(1) and 29 U.S. Code (U.S.C.) 654

Source: EHShero

Improving Workplace Safety Culture

How can I accurately capture and apply feedback from workers and contractors to improve my organization's safety culture?

"...feedback
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plan."



Responding is Shane Cabrera, senior manager, Monarch, <u>ISN</u>, Dallas. Safety is a top priority for most organizations. But when leaders fail to take proactive steps to establish a strong safety culture, they risk higher incident rates, reduced employee morale and reputational damage. These outcomes can negatively affect employee well-being, as well as profitability.

An intentional approach to workplace safety can help reduce these risks. Consequently, capturing and implementing feedback from your employees and contractors should be a foundational element of your safety plan. However, feedback is only useful if workers trust your organization to act on it. Likewise, workers need to know that organizational leadership will maintain confidentiality when appropriate and ensure their feedback leads to meaningful changes in safety practices and protocols.

So, to build trust and ensure transparency in the feedback process, it's essential to include the following elements.

Encourage honest feedback

Right out of the gate, it's important to develop accessible mechanisms for workers to submit candid feedback on both safety process improvements and potential risks. You can post QR codes at worksites so employees can open feedback forms with a quick scan of their mobile device or access the survey via email.

However, the development of user-friendly feedback collection processes is only the (Continued on page 3)

Improving Workplace Safety Culture, cont.

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first step. It's equally important to demonstrate that your organization values and seriously considers all feedback shared. If an employee or contractor raises a concern but doesn't receive confirmation that leadership has even reviewed it, it's unlikely they'll continue to provide feedback. Show your workers that their feedback matters by providing timely responses, implementing changes when necessary and following up with clear communication on the steps taken to address their suggestions and concerns.

Be transparent about action plans

Create a safety action plan that's informed by insights from your worker surveys and feedback. This plan should outline focus areas for improvement, as well as the specific actions you'll take to achieve your safety goals.

Make sure to set clear expectations for reporting safety risks and incidents by workers, and develop a process to follow up on these reports, keeping everyone updated on progress and results.

Engage a third-party safety partner

If you don't have a system in place for soliciting and implementing feedback from workers on safety policies and practices – or if you're working to rebuild trust – it can be beneficial to bring in a third-party advisor. An expert partner can collaborate with your team to establish effective feedback collection and implementation processes that are right for your industry and your organization's unique needs.

A partner also brings a neutral perspective that's useful for identifying blind spots. This can help foster open communication and trust by ensuring all employee concerns are addressed objectively and without bias. As a result, it becomes easier to build credibility with your workers and enhance the effectiveness of safety initiatives.

Final thoughts

You can't evolve your organization's safety culture without actively soliciting and applying feedback. The goal is to create a consistent feedback loop where workers feel heard and valued, and where safety improvements are continuously pursued and implemented.

Although it requires time and effort, a commitment to open communication and ongoing development will drive your workplace culture toward a safer, more inclusive and proactive future.

Editor's note: This article represents the independent views of the author and should not be considered a National Safety Council endorsement.

"Create a safety action plan that's informed by insights from your worker surveys and feed-back."



Source: EHShero

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Radium Part I: Opening Pandora's Box



When Marie and Pierre Curie discovered Radium-226 in 1898, it opened up the atom's secrets and offered hope that its mysterious radioactive rays were a miracle cure. Sobering reality replaced euphoria as radium factory workers began to die.

Radium taught the world of radiation's dangers, yet it was not until 2005 that Congress put all aspects of radium safety oversight under the federal

government. Until that time, it was primarily regulated — to varying degrees — by the states. This three-part blog series traces radium's long unique history where states took the lead in regulating it and compensating victims.

Soon after the Curies' discovery, radium became a consumer and medical sensation. Its radiation reduced tumor growth, and researchers found somewhat elevated levels of radiation at some medicinal spas, such as Saratoga Springs, N.Y., and Hot Springs, Ark. Conclusion? Radiation was a life saver. One physician claimed that radium's "radiation prevents insanity, rouses noble emotions, retards old age, and creates a splendid youthful joyous life."

Manufacturers hawked quack products they claimed were laced with radium as a miracle cure and status symbol: elixirs, kitchenware, clothes, pillows, razor blades, and cigarette holders, even condoms. Radium's luminescent properties also made possible glow-in-the-dark paint for watch dials.

In 1925, the *New York Times* reported one of the earliest instances of radiationinduced cancer. Its victims were young women—watch-dial painters in New Jersey, Connecticut and Illinois. The intricate work required them to "lip point" their brushes by licking them. Infections and cancers of the jaw followed from the ingested radium. The isotope's bone-seeking properties and long half-life made it particularly dangerous. (The time required for the radioactivity to decrease by onehalf is referred to as the half-life. The half-life of Ra-226 is about 1,600 years.)

The tragic story of the "radium girls" transformed radiation's image from panacea to poison. Public discussion turned to compensating victims and limiting radium exposures—duties that usually fell to state courts and agencies. In New Jersey, reformers won their fight for a law allowing compensation for "radium necrosis."

State labor and health agencies were able to halt lip pointing, but their power over industry was sometimes limited. For example, the New Jersey Labor Department issued to U.S. Radium Corporation an order to tighten safety for its dial painters — "comply or close." It closed and moved elsewhere.

Federal agencies mostly deferred to state authority over radium. They issued studies, organized conferences, and developed voluntary safe work practices. The Federal Trade Commission had some influence in shutting down falsely advertised products, such as the "fountain of youth" tonic Radithor, but safety assurance was a state prerogative.

"Radium's luminescent properties also made possible glow-inthe-dark paint for watch dials"

Working Safely With Formaldehyde

Formaldehyde is a toxic chemical often used in labs and certain manufacturing operations. Overexposure to formaldehyde can have serious short- and long-term health effects, so it's important to make sure you understand the hazards of formaldehyde and how to protect yourself.

Hazards

You can inhale formaldehyde as a gas or vapor, or you can absorb liquid formaldehyde through direct skin contact. Exposure to higher concentrations of formaldehyde comes with the potential for more severe health effects. Acute, or short-term, exposure to formaldehyde can cause skin irritation, discoloration, and first-degree burns. Repeated acute exposures can lead to more severe skin effects, such as blistering and second-degree burns. Formaldehyde can also be harmful to the eyes, causing irritation, redness, itching, pain, blurred vision, or even loss of sight.

Inhaling formaldehyde can cause health effects ranging from a burning sensation in the nose and difficulty breathing to tissue damage, severe lower airway effects, and even death if the exposure is high enough. Keep in mind that the safety data sheet (SDS) for formaldehyde contains information about the specific hazards, control measures, and emergency response procedures associated with using formaldehyde.

Chronic, or long-term, exposure to formaldehyde can produce many different health effects, including:

- Headaches;
- Nausea;
- Breathing impairment;
- Kidney injury;
- Difficulty balancing;
- Memory loss;
- Altered moods and irritability;
- Menstrual disorders and sterility; and
- Cancer of the nose, sinuses, and pharynx.



"You can inhale formaldehyde as a gas or vapor, or you can absorb liquid formaldehyde through direct skin contact."

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Working Safely With Formaldehyde, cont.

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Exposure controls

The Occupational Safety and Health Administration (OSHA) formaldehyde standard (29 Code of Federal Regulations 1910.1048) requires employers to monitor employee exposure to formaldehyde and make sure it doesn't reach or exceed the maximum exposure limits.

Sometimes it's not possible to avoid using formaldehyde in the workplace, and there isn't an alternative, less hazardous substance that can be used in its place. In these cases, a combination of engineering controls, administrative controls, and personal protective equipment (PPE) can be used to protect you from formaldehyde exposure.

"Engineering controls are your first line of defense."

Engineering controls are your first line of defense. These include using ventilation systems like fume hoods and establishing regulated areas for formaldehyde use and storage. Administrative controls include reassigning workers to different tasks if they show signs or symptoms of overexposure, using a solution with a lower concentration of formaldehyde, and practicing good housekeeping measures, like promptly cleaning up any spills. Remember, only clean up spills of hazardous chemicals if you have been trained. Finally, PPE is meant to protect you as a last resort. To protect yourself against formaldehyde exposure, wear protective clothing, safety goggles and face shields, and chemical-resistant gloves. When formaldehyde exposure can't be sufficiently reduced with other controls, you also need to wear a respirator.





Chemical Spotlight: Nitroethane

Nitroethane is a colorless, flammable, oily liquid with a mild, fruity odor. It's used as a propellent; as a solvent for esters, resins, and waxes; and to make other chemicals. It's not compatible with oxidizing agents, hydrocarbons, or hydroxides.

Store in tightly closed containers in a cool, well-ventilated area away from combustibles. Protect from extreme shock and high temperatures, as explosive decomposition may occur. Sources of ignition are prohibited where nitroethane is handled or stored. Metal containers involving the transfer of nitroethane should be grounded and bonded.

If nitroethane is spilled or leaked, evacuate everyone from the area of the spill or leak, and remove all ignition sources. Also, use personal protective gloves and clothing. Wear indirect-vent and impact- and splash-resistant goggles, as well as a face shield. If the potential for overexposure exists, use a National Institute for Occupational Safety and Health (NIOSH)-approved supplied-air respirator.

Prevent further leakage or spillage if it's safe to do so. Absorb liquids in vermiculite, dry sand, earth, or a similar material, and deposit in sealed containers. Keep nitroethane out of confined spaces, such as sewers, because of the possibility of an explosion. Ventilate the area after cleanup is complete.

It may be necessary to contain and dispose of nitroethane as a hazardous waste. Contact your state environmental regulatory agency or your regional office of the federal Environmental Protection Agency (EPA) for specific recommendations.





"Wear indirectventimpactand splash -resistant goggles, as well as a face shield.



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SAFETY FIRST

> Safety Quotes

Safety is as simple as ABC – Always Be Careful.

~Author Unknown

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