



Consider This

HEALTH & SAFETY NEWSLETTER
MAY 2016



Supporting the
Safety of Remote
Workers



Keeping Safety in the
Game



Respirator Cartridge
Change Schedule



Counterfeit
Respirators



Captain Obvious



Lockout Tagout
(LOTO) – FAQs



Supporting the Safety of Remote Workers

As the typical office setting is changing rapidly, millions of Americans workers have untethered from their cubicles thanks to advancements in technology and robust mindsets of management. Remote working is more common than ever, and is gaining popularity by cutting costs, increasing productivity and attracting high-level personnel. It's easy to understand why so many employees are taking advantage of the chance to skip the commute and work in more flexible, comfortable settings. However, one priority that shouldn't change with the change of scenery is workplace safety.

Remote workers risk complacency if they treat their work spaces like their living rooms. Even if the work space is the living room, working hours should be spent in a safe, comfortable, supportive, and efficient environment. Before one develops bad habits or exposes themselves to unexpected risks, it's important to understand the safety concerns associated with remote working. Working from home isn't the only example of remote working. Today, remote workers include freelancers and skilled workers who move from place to place. If driving or work on other properties are part of the job, risk management strategies or workers' agreements should accommodate these fluctuating risks.

Identify & Eliminate Risks

Remote personnel can't depend on the employer to minimize risks in the workspace. It's up to the individual to identify and eliminate the risks that may affect their ability to be productive and safe.

For example, does the work space have adequate lighting to see the work surface? Are electronics cleaned regularly, and has well-insulated and low-voltage equipment been chosen to minimize the need for maintenance and inspection? Does each piece of computer equipment have its own designated, protected socket? These are important safety concerns in any home, but now they impact the safety and productivity as an employee, too.

Of course, there are other occupational hazards to realize and it's important to make sure remote privileges don't increase these risks.

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Work Safe. Live Safe. Stay Safe.

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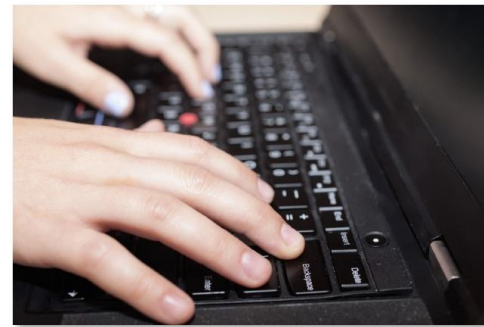
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Supporting the Safety of Remote Workers (Cont.)

Practice Home Office Ergonomics

Ergonomics is the process of customizing a workspace to accommodate a specific worker. In shared office settings, ergonomic principles are employed to minimize the risk of injury and maximize employee efficiency. These may include supportive chairs that maintain alignment and prevent muscle fatigue, overhead lights that keep employees alert, adjustable sit/stand desks or noise canceling ear phones. As a remote worker, one can get even more specific with the ergonomic adjustments.



Establish Fire Safety and Emergency Action Procedures

Remote personnel should have in place a fire extinguisher(s), smoke alarms and emergency reporting protocols. Personnel should be trained in key items such as: ensuring walkways, aisles and doorways are unobstructed, workspace is kept free of clutter and flammable liquids, portable heaters are located away from flammable items, and extension cords are not daisy chained or overloaded.



Liability Still Matters

If company personnel work remotely, they do not have to be on company property to earn the benefits of their insurance coverage. The company may be liable for compensation if personnel are injured on the clock. Because of this, employers have the right to require personnel to agree to certain safety conditions. No matter the work, we must be aware of our surroundings and practice safety when "at work."

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Work Safe. Live Safe. Stay Safe.



Supporting the Safety of Remote Workers (Cont.)

Prioritize Mental Health

Remote workers enjoy more independence and control over their environments, but they are also at risk of feeling isolated. A strong sense of community with colleagues or peers is important to stay productive and to protect mental health. Even without the distractions and drama of office spaces, lack of human contact could gradually have a negative impact.

According to one report by the Institution of Occupational Safety and Health (IOSH), remote workers risk burnout when they fail to compartmentalize their spaces and obligations. Lines between work and life can blur. There are many options to consider: switching to a public work space, child care or pet a couple of days a week, or installing a separate phone line to limit the physical space in which you handle professional matters, etc.



Stay Safe As a Remote Worker

When you understand your safety risks and practice the right prevention strategies as a remote worker, you also decrease your own chances of burnout, isolation, and injury. You will also benefit from a healthier work-life balance, and your employer and colleagues will appreciate your productivity and self-discipline. Make the most of your flexible work schedule and incorporate some good risk management strategies into your off-site work environments today.

Reference: <https://ohsonline.com/Blogs/The-OHS-Wire/2016/04/What-Remote-Workers-Need-to-Know-About-Safety.aspx>

Keeping Safety in the Game

What does baseball have to do with safety? Nothing, really. But since the Major League Baseball and Little League season is underway, let's examine the compelling similarities. As we root for our favorite team, we have expectations for that team, individual player, or manager. As we work together with our managers, project teams, and other co-workers, we have expectations for them as well.

BASEBALL	WORK
Play hard each minute of the game and not lollygag or take their mind off of the task at hand.	Go to work and keep your mind on the job task.
Know the field and the apparent obstacles which may present themselves.	Identify potential hazards and implement corrective actions.
Study the opposing team to know hitting and fielding capabilities.	Observe worker behaviors to ensure unsafe behaviors are corrected.
Prepare mentally and physically for each game.	Prepare mentally and physically for each workday.
Execute fundamentals.	Execute safe work habits and procedures.
Manage their personal life away from the game.	Manage personal life away from work.
Play or coach to the best of their ability.	Work to the best of their ability.
Stay focused.	Stay focused.
Choose the right equipment and protect themselves from injury.	Choose the right equipment and protect themselves from injury.
Be held accountable when they make mistakes or don't follow instructions. (C'mon - You know you want to bench a pitcher after 3 walks and two homeruns!)	Be held accountable for not following procedures or choosing shortcuts.

Get your head in the game, be prepared, form solid habits, and execute safely!

Respirator Cartridge Change Schedule

The service life of a cartridge depends upon many factors, including environmental conditions, breathing rate, cartridge filtering capacity and the amount of contaminants in the air. It is also suggested that employers apply a safety factor to the service life estimate to assure that the change schedule is a conservative estimate.

The revisions to the OSHA Respiratory Protection standard, 29 Code of Federal Regulations (CFR) 1910.134, became effective April 8, 1998. 29 CFR 1910.134(d)(3)(iii)(B)(2) and states:

If there is no end of service life indicator (ESLI) appropriate for conditions in the employer's workplace, the employer implements a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

A change schedule is the part of the written respirator program which indicates how often cartridges should be replaced and what information was referenced to make this determination. Currently, there are very few cartridges equipped with National Institute for Occupational Safety and Health (NIOSH) approved ESLIs. Therefore employers must develop their own change schedules, but they do not have to search for and analyze test data themselves. Employers can simply acquire information from other sources that have the expertise to develop change schedules and note the source for this information in their written respiratory program. If no information can be obtained to develop an accurate respirator cartridge change schedule, the employees must use a supplied-air system.

Developing a Respirator Cartridge Change Schedule

The following factors must be considered when developing a respirator cartridge change schedule:

- Contaminants
- Concentration
- Frequency of use (e.g., continuously, intermittently) throughout the shift
- Temperature
- Humidity
- Wearer's work rate
- The presence of potentially interfering chemicals

Once this information is gathered, a respirator cartridge change schedule is developed by using one of the following three methods.

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Respirator Cartridge Change Schedule (Cont.)

1. Conduct Experimental Tests

- An end user, outside consultant or outside laboratory can perform experimental testing to determine cartridge service life once all pertinent information has been gathered about the workplace and the contaminants.

2. Use Manufacturer's Recommendations

- A manufacturer's service-life recommendation could come from the chemical supplier or, more likely, the respirator manufacturer. This method is not as reliable as conducting your own tests, but is still a good alternative. Unfortunately, respirator manufacturers might not have information for your specific chemicals or compounds.

3. Use Mathematical Models

- Mathematical models use computer programs or complex mathematical formulas to determine cartridge service life. If computer programs are not available, then predictive or descriptive mathematical models are to be used:
 - **Predictive Model:** Developed by G.O. Wood. Looks at chemical and physical properties of compounds to determine cartridge life. This model is the least accurate method because it does not look at actual experimental data.
 - **Descriptive Model:** Looks at existing experimental data to set up a basic model. Once this model has been set up, it can be used to calculate values for points where experimental data is not available.

Chemical Mixtures

Cartridge service life for mixtures is best determined using experimental methods. OSHA states the change schedule for a mixture should be based on reasonable assumptions that include a margin of safety for the worker wearing the respirator. Where the individual compounds in the mixture have similar breakthrough times, service life of the cartridge should be established assuming the mixture stream behaves as a pure system of the most rapidly migrating component or compound with the shortest breakthrough time. Where the individual compounds in the mixture vary by two orders of magnitude or greater, the service life may be based on the contaminant with the shortest breakthrough time.

Breakthrough

If a user experiences breakthrough, the cartridge or filter becomes soiled or breathing becomes difficult prior to the scheduled change out interval, change the cartridge/filter immediately and notify the employer so use conditions can be re-evaluated and adjustments made to the change schedule.

Sources: OSHA 29 CFR 1910.134 <https://www.grainger.com/content/qt-respirator-cartridge-change-schedule-196>
Mine Safety Appliances (MSA) North Safety by Honeywell



Counterfeit Respirators/Misrepresentation of NIOSH-Approval

Counterfeit respirators are products that are falsely marketed and sold as being NIOSH-certified and may not be capable of providing appropriate respiratory protection. **Altered** respirators are non-approved modification to a NIOSH-certified respirator.

Figure 1 is an example of a counterfeit N95 Respirator that was brought to NIOSH's attention. While the TC number and private label holder are valid, this unapproved unit can be identified by the misspelling of NIOSH on the front of the respirator.



Figure 2

Figures 2 and 3 are examples of counterfeit respirators. These respirators are being sold as if they are NIOSH-approved even though the manufacturer, Zubi-Ola, is not listed as a NIOSH approval holder or a private label holder.

There are a number of reasons these respirators enter the workplace. The most common is price. These respirators are often lower priced than certified respirators in order to appeal to cost-conscious employers. Another reason is lack of availability. Counterfeit respirators may enter the workplace when the regular supplier is unable to ship or supply NIOSH-certified products regularly used at a facility. For example, this happened during the 2009 pandemic flu outbreak, when N95s were in short supply.

Figure 1



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Counterfeit Respirators/Misrepresentation of NIOSH-Approval (Cont.)

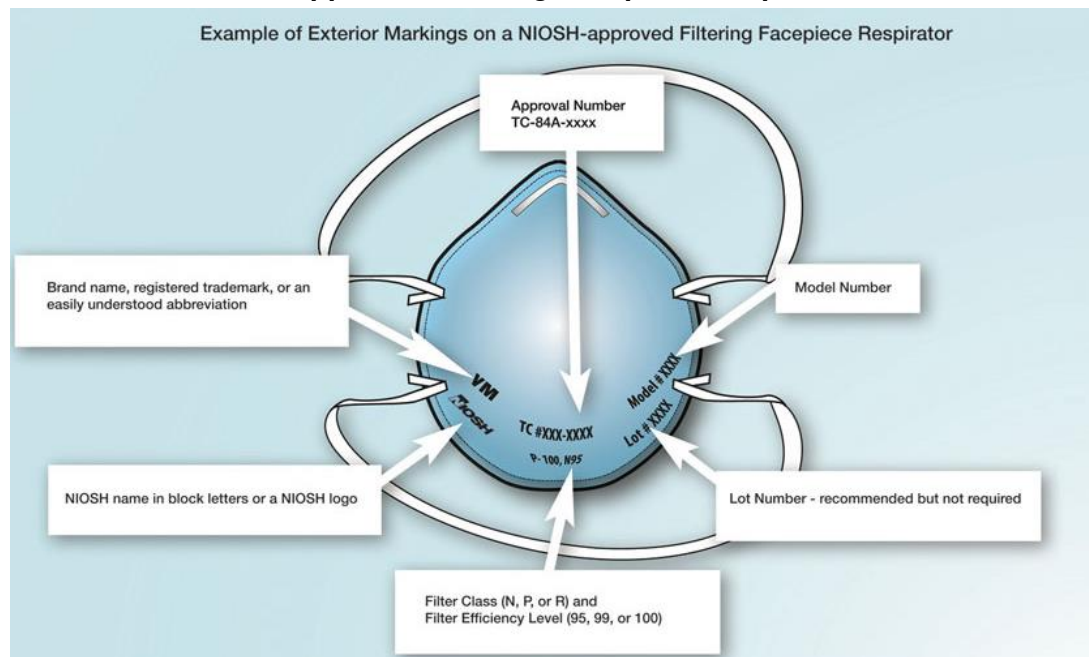
Figure 4



Figure 4 is an example of misrepresentation of the NIOSH-approval. All approvals for Wein Products (WPI) were rescinded in 2011. However, the manufacturer's website continues to state the ViraMask N99ESC is certified by NIOSH. View the user notice announcing the rescission.

Check the respirator approval markings (see example) or the [Certified Equipment List](#) to verify your respirator is NIOSH-approved. Additional information is available on the [NIOSH Trusted Source page](#)

Example of the Correct Exterior Markings on a NIOSH-Approved Filtering Facepiece Respirator



Sources:

http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource.html

<http://www.cdc.gov/niosh/npptl/topics/respirators/cel/default.html>

<http://www.cdc.gov/niosh/npptl/usernotices/notices/notice08262011.html>

Why is it that safety professionals are getting heckled when we provide reminders on basic safety information and then go into a facility to conduct a mock-OSHA audit and find the same type of potential hazards or non-compliance items over and over again? Each month we feature a "Captain Obvious" photo to share simple safety reminders that are found on jobsites every day.



**Fall Protection
Scaffold Erection
Housekeeping
Walking Working
Surfaces
Slips Trips &
Falls**



Reviewing ANSI Pipe Marking Standards

New Rule to Prevent Silica Dust Inhalation

The Ins and Outs of Pre-Project Safety Meetings

Encouraging Safety without the Gimmicks

May is National Water Safety Month

Captain Obvious

Contact Monica Meyer at Monica.Meyer@ehs-support.com today to learn more about how we can help you manage your health and safety risks.



Lockout Tagout (LOTO) – FAQs



What is a LOTO Program?

A LOTO Program must include the following:

- Plant- or company-wide safety policies
- Machine-specific lockout procedures
- Lock, key and tag control
- Program review and certification
- Outside contractor rules and regulations

Training for employees includes classroom and hands-on instruction. Authorized employees must demonstrate their proficiency in startup and shutdown procedures.

A copy of OSHA 29 CFR1910.147 should be readily available for reference.



Who must have a LOTO Program?

All companies whose employees service or maintain equipment with potentially Hazardous Energy sources must have an OSHA-compliant LOTO program.



When does LOTO apply?

LOTO applies whenever the employee performs service or Maintenance on equipment/machinery that requires the employee to remove or bypass a guard or safety device or requires the employee to place any part of his/her body at the point of operation of the equipment/machinery.



When does LOTO not apply?

LOTO does not apply to cord- and plug-connected equipment where the cord and/or plug are under the control of the authorized employee throughout the repair; hot tap operations; or when shutdown of the system is impractical. Companies may choose to prepare LOTO procedures for cord- and plug-connected equipment.

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Lockout Tagout (LOTO) – FAQs (Cont.)



What is the minimum requirements for LOTO compliance?

To become compliant with the Lockout/Tagout standard, an employer must perform the following:

- Classify employees as "affected" or "authorized"
- Provide affected employee and authorized employee training
- Develop equipment-specific written hazardous energy control procedures
- Conduct an annual Lockout/Tagout inspection



What are normal production operations?

Normal production Operations can be described as using machines or equipment to perform their intended production functions.



What is the difference between an authorized and affected employee?

An authorized employee is one who performs LOTO in order to conduct service or Maintenance on equipment and machinery.

An affected employee is one who works in or around the area in which service or Maintenance is being performed. An Affected Employee is not permitted to perform the LOTO procedure.



Who is responsible for contractors?

In addition to ensuring the safety of its own employees, the employer is responsible for the outside Contractor's on-site personnel. The LOTO program must include policies, procedures, supervision, and authority for service involving contractors.

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According to OSHA, following proper lockout/tagout procedures prevents an estimated **120 fatalities** and **50,000 injuries** each year.



Source: <http://www.esfi.org/resource/lockout-tagout-your-life-depends-on-it-544>

