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# Health and Safety News

*As environmental consultants, it is our goal to provide the highest quality environmental services to our clients. In order to provide the best service, it is paramount to ensure the continuing health and safety of our employees and subcontractors. The health and safety success of our team assures the success of our projects. At Roux Associates, we are dedicated to promoting a positive safety culture in the field, within our offices, and throughout our personal lives. – Roux Associates*

## PPE: What to Consider *Kaitlin Mars, New York*



Personal Protective Equipment (PPE) is required for all field work done by Roux personnel. At most sites typical minimum PPE includes a hard hat, high visibility clothing, steel or composite toe boots, and safety glasses. When working with

impacted material, nitrile gloves should be worn (over cut-resistant gloves if applicable). However, there are some variables, such as weather conditions and type of work, that should be considered when selecting the necessary PPE for a job.

### Temperature

Field work occurs year-round and depending on your location, you may experience extreme cold or hot temperatures at certain points of the year.

The following list provides PPE recommendations for working in cold temperatures:

- Wear multiple layers of loose fitting clothing.
- Wear a hard-hat liner or a beanie to reduce the amount of heat escaping from your head.
- Wear fleece-lined ANSI Level II cut-proof gloves if applicable.

The following list provides PPE recommendations for working in hot temperatures:

- Wear dry-fit shirts to keep moisture off and keep your body cool.
- Wear a neck shade to keep your neck cool and protect it from the sun.

### Sun/Lighting

Before going out into the field it is important to consider what the lighting will be like throughout the day. If you are working outside, check the forecast and wear shaded safety glasses if clear skies are predicted. Wear clear or amber glasses if a cloudy day is forecasted or if you are working indoors.

### Heavy Equipment

If you are working on a site that involves heavy equipment there are some extra PPE requirements. In addition to high visibility clothing, a DOT Class 2 reflective safety vest is mandatory.

### Noise

Another crucial factor to keep in mind is the sound level on site. Roux’s policy requires hearing protection at 85 decibels. If the noise level exceeds 95 decibels, double hearing protection should be considered.

### Additional Site Requirements

Depending on the site you’re working at, you may be asked to wear specific articles of clothing based on the client’s health and safety policies. For example, one of Roux’s Brooklyn, New York sites requires all personnel to wear long-sleeved shirts onsite throughout the year. ANSI Level II cut-proof gloves must either be worn or be on your person depending on the task. Even those who are visiting this site are required to abide by the same dress code, ensuring the safest environment possible for everyone present.



# The Flu *Marjorie Grace van der Ven, Massachusetts*

Workplace hazards come in all shapes and sizes, from 30,000-pound excavators, to microscopic flu virus particles. While our line of work can expose us to massive safety concerns, it is important not to overlook the tiny ways in which we expose ourselves to health risks every single day. According to the Center for Disease Control (CDC), hundreds of thousands of people are hospitalized with influenza each year, and this year is no exception. In fact, the 2017-2018 flu season has been particularly virulent. The first quarter of 2018 has seen a percentage of patient visits due to influenza-like illness well above the national baseline of 2.2%. With these statistics in mind it is almost inevitable that someone you know, whether it be in

to help prevent the spread of germs like the flu. Follow these five simple steps:

- Wet your hands with clean running water
- Lather your hands by rubbing them together with soap
- Scrub your hands for at least 20 seconds
- Rinse your hands well under clean running water
- Dry your hands using a clean towel or air dry

Hand sanitizers do not eliminate all types of germs, but if soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol.



### Disinfect

Washing your hands can only go so far if the objects you handle on a day to day basis are contaminated with germs like the flu. Clean

and disinfect objects like phones, remote controls, computers, children's toys, and doorknobs.

### Boost Your Immune System

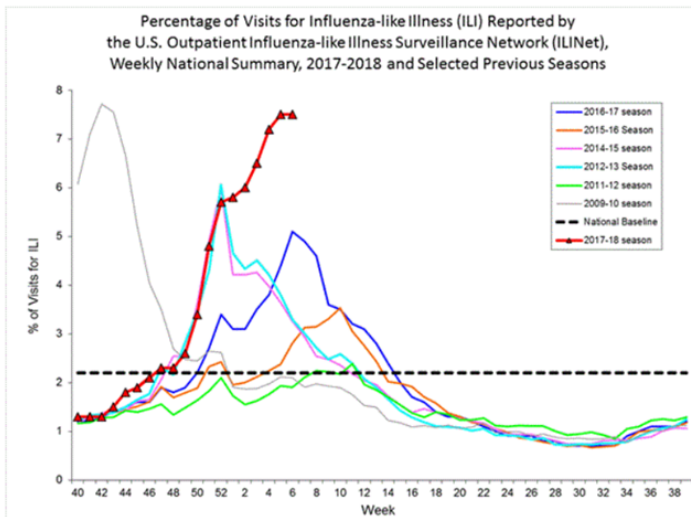
When its working well, your body and its natural immune system can be your best defense against illnesses like the flu. To bolster this defense system, it is important that you:

- Sleep
- Exercise
- Make healthy food choices and stay hydrated

Staying healthy during flu season can be a challenge. By following healthy guidelines and taking simple precautions to prevent the spread of germs, we can do our best to keep ourselves healthy and safe. When it comes to infectious disease, we're all in this together.



**ROUX**



your office or at home, will come down with the flu. When the flu strikes, here are some tips to reduce the spread and stay healthy:

### Get the Flu Shot

It is recommended to get the seasonal flu vaccine by the end of October each year. If you forgot, it isn't too late—getting vaccinated later can still be beneficial. While the flu vaccine does not work well against H3N2 viruses, it protects against three or four other strains (~36% effective this year), and some data suggests that even if someone gets sick after the vaccination, their symptoms may be milder than if they had not gotten the vaccine at all.

### Wash Your Hands

Washing your hands is one of the best steps you can take

# Noise Exposures

Michael Friedman – Oakland, California

No matter where we go, we are exposed to some level of noise: in the office, at the job site, in cars or trains traveling to and from work, listening to music, watching TV, out at restaurants, clubs, or sporting events. Most of our exposure is safe and does not adversely affect our hearing, but sounds that are too loud can damage our hearing either temporarily or permanently, leading to noise-induced hearing loss (NIHL). Studies of hearing loss in the US estimate up to 48 million Americans have experienced hearing loss, roughly 1 in 5 teens and adults.

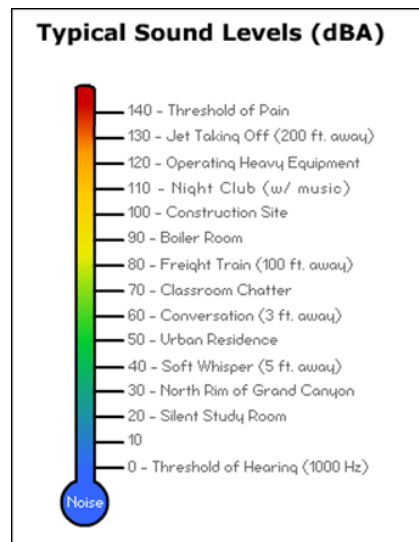
## What are the symptoms NIHL?

The damage from noise exposure is typically slow and you might not notice changes in your hearing until they are significant. Gradually, sounds can become muffled or distorted, high frequency sounds become more difficult to hear, or speech becomes more difficult to understand. Exposure to impulse or continuous loud noise can sometimes cause a temporary hearing loss where hearing returns within 16 to 48 hours; however, there may be residual long-term damage to hearing. Loud noise exposure can also cause a perceived ringing, buzzing, or roaring in the ears

known as tinnitus. This may subside over time, but may also continue constantly or occasionally throughout one's life.

## How do you know when sound is too loud?

The Occupational Safety and Health Administration (OSHA) set a permissible exposure limit (PEL) of 90 A-



weighted decibels, or dBA, for all workers for an 8-hour day with an action limit of 85 dBA. Roux's policy requires hearing protection at 85 decibels. Because the decibel scale is logarithmic, the OSHA standards also use a 5 dBA exchange rate, which means for every noise level increase of 5 dBA, the amount of time a person can be exposed to receive the same dose is cut in half. When determining your

own exposure, keep in mind that the OSHA 85 dBA-weighted standard assumes workers have quiet when they are not at work, which may not be true for many Americans.

## How do you know when you are at or above the OSHA action limit or the PEL?

A simple rule of thumb is if you need to shout to be heard by someone approximately one meter away, then the noise level is likely greater than 85 dBA. However, the best way to know the noise level is to conduct a noise assessment and measure it with a sound level meter (SLM). Professional SLMs are readily available from equipment rental companies. In a pinch, you can use a smartphone app such as SLA Lite or NIOSH Sound Level Meter, but these will only provide approximate readings that can indicate if there is a potential noise problem (+5 dBA or more depending on the app and phone). Unlike smartphone apps, SLMs must comply with national and international standards such as American National Standards Institute (ANSI) S1.4-1983 (R2007), which specify numerous acoustical and electrical tests with specific tolerance limits and measurement uncertainties for specified frequency ranges.

## What can we do about noise exposures?

If you cannot completely eliminate or substitute a noise source with one that produces less dBA there are three main techniques to reduce worker exposure to noise:

**Engineering Controls:** These are physical changes to the noise source to lower exposure to the worker, such as using quieter equipment, adding mufflers or enclosures, modifying equipment to reduce equipment vibrations, or using sound barriers/walls.

**Administrative Controls:** These are changes in the workplace to reduce or eliminate the worker exposure to noise, such as decreasing the worker exposure time or positioning workers at greater distance from the noise source. The noise level is decreased by 6 dBA for each doubling of the distance.

**Personal Protective Equipment (PPE):** This is equipment that either fits in the ear, both disposable and reusable (ear plugs) or over the ears (ear muffs). PPE is the last resort and the least effective of the noise exposure controls.

# Walking on Slippery Surfaces

Christine Pietrzyk & Ray Olson,  
Illinois

## Educating employees about conditions and/or situations that can cause a slip, trip, or fall.

Statistics show that 60% of falls happen from the same level, meaning a slip or trip. This can be caused by wet surfaces, weather hazards, or surfaces that do not have the same degree of traction in all areas. Changing weather conditions can create icy surfaces on compact roadways, stairways, and equipment surfaces. It is important to have properly fitting footwear with the right type of sole material for the conditions you'll be facing. Footwear worn indoors can be more apt to slip when suddenly shifting to a cold outdoor icy surface. Ground conditions or equipment surfaces may pose a hazard when exiting the vehicle or equipment. To prevent falling when exiting a vehicle, exit in a way that allows both feet to contact the ground.

## Techniques to Reduce Personal Risk:

- Use a three-point contact on stairs, cat walks/platforms, and exiting vehicles.
- Slow down, keep your knees loose, widen your stance and shorten your stride when moving across slippery surfaces. Avoid carrying heavy loads.
- Try the "Penguin Walk" – Turn your feet out slightly, keep the heel weighted to avoid rolling forward



on to the front of the foot and keep your arms out to your sides for balance.

With April showers and the summer approaching, we will deal with an increase in wet conditions. It is imperative to scan ahead for uneven terrain and slick, wet surfaces. Soils high in clay content can become very slick when hydrated.

## Tips for Walking in the Spring Include:

- Wear water-resistant safety footwear to prevent conditions such as trench foot and hypothermia.
- Walk up slopes at an angle to decrease the angle traveled and scan the area for less steep surfaces.
- Side step when walking downhill. This allows your center of gravity to remain favorable with the slope while increasing surface area in contact with the ground.
- Keep a keen eye out for holes and trenches when walking in thick vegetation. Identify the base of the vegetation and keep an eye out for changes in vegetation that can suggest a trench/wetland type area.

## Engineering Controls to Reduce Hazards:

- Whenever possible, eliminate slippery surfaces by clearing snow and sanding/salting walkways.
- Create awareness around potential hazards by incorporating signage, safety cones, and barrier tape.

# 1st Quarter H&S Message

Brian Hobbs, CIH, CSP, Senior Health and Safety Manager

## 2018 Metric Initiative-Hazard Identification

The first step to a successful comprehensive loss control program is to identify and evaluate work conditions for hazards. Once identified, one can properly prepare and implement mitigative actions to either minimize or eliminate the potential for near losses or losses to occur. With the release of our new digital H&S tool submission platform we have been able to collect hazard identification information in real-time. In just over a month, we have received a total of 85 hazard identifications throughout the firm, ranging in activities such as site inspections, gauging, sampling, drilling, and operations and maintenance—just to name a few. These instant shares are providing management insight into the day-to-day hazards our staff are faced with in the field and what they are doing to mitigate them. As we progress through the year this information will become valuable in assessing leading trends, and assist with preparing for and anticipating potential hazards for future work performed throughout the firm. Overall, this real-time identification of hazard trends ensures our personnel and sites are safer.

FOR MORE INFORMATION, Contact Safety Managers:

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