# ROUX Health & Safety News

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# **Roux's Ergonomics Committee**

By Sean Owens, Senior H&S Specialist - Long Beach, California

In late 2021, Roux began to establish an ergonomics safety committee after a trend in musculoskeletal injuries within the firm. In Q3 2021, we experienced two losses that could have been prevented if the

correct mitigative measures had been in place at the time of the incident. As a result, we went back to rethink how we could improve upon our ergonomics program, which started with our people. What better way to invoke change and get an understanding of the work we do day in and day out? Roux's ergonomics committee was established to include our experts throughout the firm, who were willing to volunteer their time to make improvements on how we view work from an ergonomics perspective.

The purpose of the committee is to increase employee awareness of musculoskeletal stressors in the workplace and develop mitigative measures to reduce overall strain on the employee. Like many environmental consulting firms, we conduct several field tasks that are not ergonomically friendly. From groundwater sampling and handaugering to vapor sampling, all these tasks cause us to conduct repetitive motions and awkward postures, which can take a toll on our muscles and ligaments.

What does our ergo committee do? The committee meets once a month for one hour to discuss ergonomics as a whole. In these meetings, we discuss ergonomic evaluations and identify tools that will mitigate exposures.

During an ergonomic evaluation, the highest risk tasks that employees conduct in the field are observed and recorded on video. These videos are processed through a digital program that identifies where strain is placed on the body while performing the task.

The ergo committee then discusses solutions for mitigating the defined exposure. Mitigation could include:

- The use of a device to lift and reposition heavy objects;
- Using the "buddy" method of lifting (two people);
- Possibly, repositioning a worktable to eliminate an excessive reach; and
- The use of knee pads when kneeling.

The ergo committee's goal is to educate and prevent employees from obtaining a musculoskeletal injury, one of the most prevalent and costly safety and health problems in the workplace. The ergo committee will continue to evolve and change as it meets the challenge of improving the program. With time and increased effort, the committee will institute new technology and methods that improve ergonomics for our employees, both professionally and personally.



## **Recreational Sports Safety**

By Robert Martin, Staff Geologist - Houston, Texas

Now that spring is here and summer's fast approaching, we'll finally be spending more time outdoors. Whether you're a weekend warrior, an avid gym goer, or like to go for an occasional walk, recreational sports involve some important key safety factors. Here are a few dos and don'ts in the sports world as we gear up for the warmer months.



#### **Hydration**

Hydration is the most critical part of any exercise or sports activity. It's very easy to fall into the "it's not that hot outside, I can go without water" trap while exercising indoors or outdoors. The U.S. National Academies of Sciences, Engineering, and Medicine via <u>www.mayoclinic.org</u> states an adequate daily fluid intake is about 15.5 cups (3.7 liters) of fluids a day for men and about 11.5 cups (2.7 liters) for women. However, this is not based on those who are actively participating in recreational activities several times a week. Water intake will vary per person depending on how physical the activity is and how much energy is being exerted. Go ahead and swing that bat, take that stroll through the park, or hit the free kick into

the net—just remember to be conscious of your fluid intake while doing so.

#### Proper Warmup

If you think you pulled a muscle, you probably



did, and it is likely that you didn't take the time to prepare for your activity ahead of time. No matter which recreational sport activity you do, you should take 10-15 minutes to properly get your body warmed up. It is best to do a strong dynamic warmup with a short static stretch before, and static stretch after. Dynamic warm-ups involve actively loosening the muscles. Start with a walk or light jog to get the blood flowing and move into some dynamic movements over a distance (10 yards or more), such as "butt-kicks" or "high-knees," before you get into your activity. There are many dynamic routines, just find what works best for you.

#### **Proper Cool-down**

As we get older, our bodies recover more slowly. Depending on your age and physical shape, you could experience different aches and pains throughout your body. By using proper cool-down techniques, you can minimize your discomfort. After each activity, take the time to do some static stretching. You can develop your own routine or find a program online. For example, there are many yoga instructors on the internet with routines that range from rehab type exercises to intense, advanced level yoga. These programs can range from 10 minutes to an hour. Choose one that you have time to complete.

These are some of the most basic, safe practices for recreational sports activities. With a little time, dedication, and sincerity, these tips will help you take care of your body. Remember, most of us are doing this for fun, not the summer Olympics. Stay safe, everyone!



# Tips to Avoid Complacency on Long Duration Events

#### By Michael Dubroski, Staff Assistant Engineer – Logan Township, New Jersey

"Familiarity breeds complacency," a quote by author Rick Warren, aptly describes one of the biggest obstacles workers face when stationed on long duration projects. This becomes especially true regarding health and safety during a work event. Complacency can result from any of the following:

- False sense of security from performing repetitive tasks;
- Mind not focused on the task at hand; and
- Overconfidence in your ability to perform task safely.

Although the list above is not exhaustive by any means, it is meant to show that as people become more familiar with a task, the health and safety risks will rise exponentially.

Psychologists contribute the above to human beings' ability to process information in front of them through two distinct systems: fast thinking and slow thinking. Neuroscientists can support these claims using brain imagery of the prefrontal cortex (PFC). Their studies show how the PFC lights up as neurons in the brain are firing when presented with new information, as opposed to brain activity during a repetitive task where neural pathways have previously been ingrained. Familiarity and complacency are the result of these ingrained neural pathways.

The question becomes, how do you ward off complacency during long duration/repetitive events? There are two main avenues through which a person can stay engaged. First is the responsibility of the employee: being mindful and possessing self-awareness about what is happening in their surrounding environment. Second would be an institutional control: the



health and safety culture of the firm or company that you represent giving adequate opportunities to keep safety at the forefront of your work.

Below are helpful tips with examples to keep you thinking about job site safety:

#### **Self-Awareness**

- Review the respective Job Hazard Analysis/Job Safety Analysis of the work to be completed that day (e.g., groundwater sampling, soil sampling, subcontractor oversight);
- Review the site-specific Health and Safety Plan on a regular basis (where is the muster point, closest hospital in case of emergency, what hazards should I look out for?); and
- Ask yourself or team thought-provoking questions daily to emphasize the importance of safety.
  - What could go wrong in this situation?
  - How can we handle this task so if something does go wrong, nobody gets hurt (e.g., whip checks on pressurized equipment, exclusion zones setup)?

#### Institutional

- Attend corporate Health and Safety meetings (monthly/bimonthly);
- Stay current on Health and Safety trainings (HAZWOPER, OSHA 30, TWIC); and
- Field audits performed by colleague or health and safety officers (fresh set of eyes to analyze individuals' performance).

Although we can become complacent during familiar repetitive/long duration events, the above tips should provide some tools to stay focused. There is daily opportunity to stress the importance of health and safety on individuals or team members. By asking the right questions, being self-aware of your environment, and having an institution that prioritizes health and safety, you will make it difficult for complacency to set in during long duration events.

### The Importance of Field Follow-up By Sharon Deery, Staff Geologist – Somerset, New Jersey

While leaving the field at the end of a long week may feel like a relief, we all know that the project is far from over. Boring logs and data tables are complete, and that internal follow-up meeting is the last thing on one's mind. Often, field follow-up meetings are downplayed, but they are a critical component for growth, safety, and success.

#### Growth

Communication creates a learning opportunity for all parties. Through follow-up meetings, the field staff gains a deeper understanding of the project's objective, as well as industry best practices. These meetings also provide time to discuss the future of the project, presenting an opportunity to expand one's knowledge of state regulations and programs. These meetings also provide the perfect opportunity for feedback. By discussing expectations versus performance, staff can measure their own progress, identify mistakes to correct, and improve communication, resulting in setting clearer expectations. Management can also use this opportunity to train staff and correct mistakes, ensuring effective work in the future.

#### **Task Assignment**

While discussing the field work conducted and remaining action items, a field follow-up meeting provides an opportunity to directly assign these tasks. By doing so, no task is forgotten, and time is not wasted duplicating efforts. This is also a great time to discuss the timeline of the project. Project managers can plan for future field events, while field staff are given clear expectations of what's to come.



#### Communication

While in the field or during scheduled meetings, it can be hard to get in touch with your team. A lot of field/office communication is brief, informative, and direct, to keep up a steady-paced progress. By setting time aside for follow-up communication, all parties have the chance to voice any concerns, make recommendations, and ask guestions. For example, this would be an opportune time to mention that traffic in an area has increased, more cones are needed for a groundwater event, or that poison ivy was spotted and long sleeves should be worn. Senior staff can only implement safety measures if they know what they're up against. By field staff informing the rest of the team, action can be taken to ensure all possible safety measures are taken.

By having in-depth discussions about the work that was done, the team can only benefit. As these meetings continue, knowledge grows and

> emphasis on safety increases. Field follow-up meetings are a simple and effective way to protect the health and safety of those you work with, as well as learn from those around you.



# ROUX

## Beware of Black Ice

By Jeffrey LaCroix, Senior Geologist - Woburn, Massachusetts

Spring is sprung, and with that comes warmer days and cold nights. Ice or snow that melts during the day refreezes at night creating black ice, which increases the risk of slips and falls (or falling with no warning at all!).

#### What is Black Ice?

Black ice forms when water freezes in such a way that it appears completely clear to the eye. The clarity of the ice frequently causes the pavement, walkways, or other surfaces to show

through it, creating the illusion that no ice is present. This poses a great risk to those unaware of this danger.

#### What Can Be Done?

- Assume that all wet, dark areas on pavement walkways or other surfaces are slippery and icy. Use handrails for support.
- Do not text or read while walking.
- Spread an ice melting agent (rock salt, ice melt) on commonly used walkways or other surfaces (review and understand the pros and cons of the ice melting agent you choose to use; it may need to be pet friendly).
- Avoid footwear with a smooth sole or heels. Instead, use footwear that provides traction made of non-slip rubber or neoprene with grooved soles. If necessary, wear traction cleats, like Yaktrax, over your footwear.
- Use special care when entering and exiting vehicles; use the vehicle for support.
- Walk in designated walkways. Look ahead when you walk. Taking shortcuts over snow piles and other frozen areas can be hazardous.
- Point your feet out like a penguin; spreading your feet out slightly while walking on ice increases you center of gravity.
- Bend slightly and walk flat-footed with your center of gravity directly over the feet as much as possible.
- Extend your arms to your sides to maintain balance.



- Keep your hands out of your pockets. Hands in your pockets while walking decreases your center of gravity and balance. You can help break your fall with your free hands if you start to slip.
- Watch where you are stepping and go slowly.
- Take short steps or shuffle for stability.
- If appropriate wear a heavy, bulky coat that will cushion you if you should fall.
- Try to avoid landing on your knees, wrists, or spine. Try to fall on a fleshy part of body, such as your side. Bend your head forward to avoid hitting your head on the ground.
- Fall with sequential contacts at your thigh, hip, and shoulder. Avoid using outstretched arms to brace yourself.

