

Best-In-Class Thought

"Success consists of going from failure to failure without loss of enthusiasm."

– Winston Churchill

"Be kind whenever possible. It is always possible."

– Dalai Lama

"Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."

– Thomas A. Edison



this issue

What's your Safety Role? **P.1**

Suspension Trauma **P.2**

Occupational Fatigue **P.3**

Seattle Resource Center **P.4**

Note from Leanne

In 2007, right after the merger between Fleet Environmental Services (Fleet) and Moran Environmental Recovery (MER), MER introduced an employee development program that assigned high-potential field employees to a six-month tour-of-duty on the Safety Team. These newly branded "Safety Associates" had the opportunity to gain critical experience for future growth, while helping to drive the integration of the Fleet and MER companies towards a goal of a seamless organization, rooted in a Best-in-Class safety culture.

Since then, our organization has grown tremendously in headcount, services provided, industries served and of course geographically, stretching from the west coast to the east coast and even to our neighbor to the north, Canada. Though the Safety Associate Program as it was originally designed is not active today, we certainly have a safety program that through the years has evolved into a much more mature and effective platform to drive a Best-in-Class safety culture. That culture is rooted in the idea that safety is the responsibility of everyone, not just a select group of individuals; this approach has helped us become a safer and more well rounded organization and I believe it has helped raise the bar in safety for our industry.

What's your Safety Role?

Though we believe safety is everyone's responsibility, there are some critical safety-focused roles that let us provide safety oversight in various capacities while offering opportunities for our employees to seek professional growth and development.

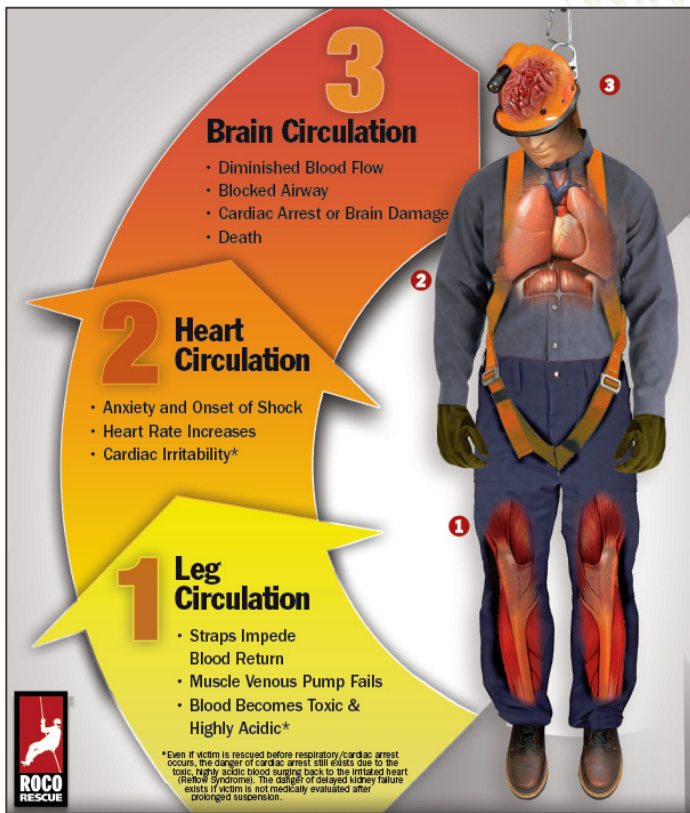
Confined Space Rescue (CSR) Specialist

- Helps Resource Centers manage their local confined space and Confined Space Standby (CSS) programs
- Inspects and manages rescue equipment
- Facilitates monthly CSR skills development activities
- Completes confined space assessments
- Develops rescue plans
- Assists H&S Team with CSR training and proficiency evaluations
- Receives advanced CSR and rope rescue training

Site Safety Technician (SST)

- Primarily for long-term projects (plant outages and large-scale spill responses)
- Develops JHAs
- Completes Site Assessments
- Manages site safety equipment
- Provides safety oversight for daily activities
- Receives advanced safety training and certification

If you are interested in helping the company drive our safety culture while building your industry knowledge and experience, please contact your local manager and let them know about your interest.



Suspension Trauma

Suspension Trauma, otherwise known as harness pathology, distributive shock, or orthostatic intolerance, has recently been identified by OSHA as a workplace hazard particular to workers using personal fall arrest systems (PFAS) after a fall arrest has occurred. So what are the dangers of suspension trauma?

Leg Circulation – A fall arrest harness does a great job of dissipating the energies generated during a fall arrest. However, after all motion has stopped, that same harness will most likely impose pressure to the femoral vein that is the primary blood vessel that returns blood from the legs towards the heart. To compound this, the human body relies on what is known as the muscle/venous pump to assist the blood return from the legs to the heart. In suspension, the worker often forgets to bicycle their legs to create this muscle/venous pump. The trapped blood in the legs creates what is known as distributive shock as more and more blood is trapped in the legs; there is less to circulate for the rest of the body (brain, heart, lungs, and kidneys). Additionally this blood becomes highly acidic and toxic with metabolic wastes.

Heart Circulation – As the body goes into distributive shock, the heart must increase the rate and strength of its contractions to compensate. To compound this, the suspended worker may be experiencing a high degree of fear and anxiety, which releases adrenalin into the blood stream causing the heart to work harder and faster. This places increased demands on the heart that is now receiving less blood flow and thus less oxygen. The heart becomes irritable and is prone to localized tissue damage, dysrhythmias or both. This is especially a concern once the worker is rescued and the toxic blood is allowed to surge from the legs to the irritable heart. This is known as reflow syndrome and has caused several victims to go into sudden cardiac arrest upon rescue.

Brain Circulation – As the victim goes into distributive shock, or worst case, suffers cardiac arrest, the brain is deprived of adequate blood supply; this can lead to unconsciousness. If the victim faints the airway can be blocked by the head position or even by a poorly adjusted harness that allows the chest strap to block the airway. That is a difficult statement to write into a fatality report “Cause of Death: Strangulation by Victim’s Own PPE.” If the victim’s heart stops, we can expect permanent brain damage or death in as little as four minutes.



Obviously, prompt rescue from an arrested fall is vital to the fallen employee’s health. A rescue plan should be derived prior to setting up the fall protection system. When creating a plan, consider that the fallen employee may be unconscious from injuries that occurred during the fall, and therefore unable to assist rescuers. Additionally, a conscious employee should bicycle their legs to keep movement or have something to step into to relieve the pressure of the harness straps (see picture to left).

http://www.rocorescue.com/roco-rescue-blog/suspension_trauma_dangers

There’s an App for that!

Ladder Safety
NIOSH



The NIOSH Ladder Safety application features a multimodal indicator, which uses visual and sound signals to assist the user in positioning an extension ladder at an optimal angle. Furthermore, it provides graphic-oriented interactive reference materials, safety guidelines and checklists for extension ladder selection, inspection, accessorizing, and use.

Occupational Fatigue

On February 8, 1986, 23 people were killed when a mile-long Canadian National Railway freight train ran a caution signal and a red light, and then collided with a VIA Rail passenger train. It was the most lethal Canadian rail disaster in three decades. Three years later, on March 24, 1989, the Exxon Valdez oil tanker ran aground in Alaska's Prince William Sound, spilling nearly 11 million gallons of crude oil into the ocean. It was the largest single oil spill ever in U.S. coastal waters.

What do these two modern-day tragedies have in common? Occupational fatigue was determined to be a contributing factor to each of these events. While these worst-case scenarios are rare, occupational fatigue is not. Occupational fatigue is associated with extreme physical or mental tiredness that occurs on the job. Traditionally, focus has been on understanding and controlling the risks associated with long work hours; however, researchers at the Liberty Mutual Research Institute for Safety and the Université Paris Descartes hypothesized that other shiftwork factors—such as the number of consecutive hours worked, time of day, and number of rest breaks—may have a greater impact on safety than the total number of work hours alone. The data they collected is demonstrated in the tables below.

Fitness Challenge

Swim 700 Yards in 12 Minutes

Swimming requires both aerobic capacity and upper-body muscle.

The Test: Swim as far as you can in 12 min. Add up total distance in yards.

The Scorecard:

Less than 500 yards:

You're sunk

500-700 yards: Ordinary

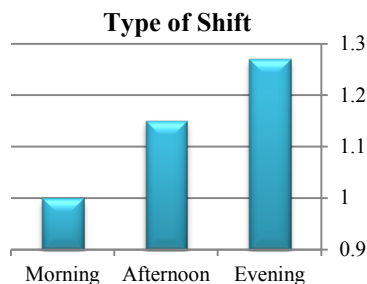
More than 700 yards:

Aquatic excellence

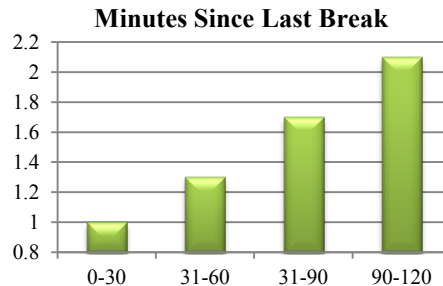
Swim Better, Swim Farther:

Keep your head aligned with your body while swimming. When you breathe, roll your entire body—as if you were breathing with your belly button—without changing the position of your head. You'll float better and use less energy, enabling you to swim farther.

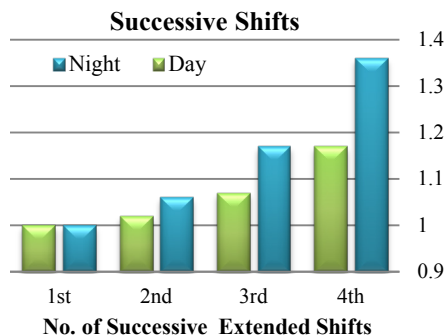
www.menshealth.com/fitness



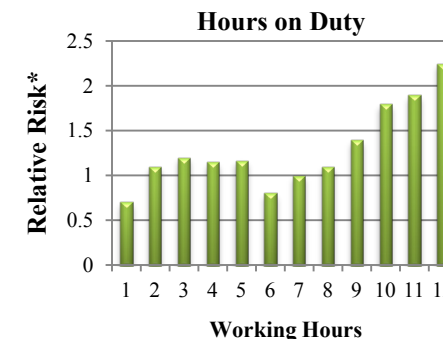
Type of Shift: Relative risk of work-related injuries increased 15.2% on afternoon shifts, and 27.9% on night shifts, as compared to morning shifts.



Time between Breaks: Both day & night shifts' injury risk increased substantially between successive breaks as the shift went on. Risk nearly doubled by the last 30-minute period preceding a break.



***Relative Risk:** Risk probability ratio of a work-related injury occurring in one type of shift as compared to another, for example, a night shift compared to a day shift.



Schedule Recommendations:

- Schedule day (morning) shifts rather than afternoon or night shifts.
- Limit consecutive day shifts to five or six, night shifts to four.
- Provide frequent rest breaks. (Hourly is appropriate for most work. Highly repetitive or strenuous work may require more-frequent breaks.)
- Schedule work so that all workers have at least two consecutive rest days, with Saturday or Sunday as one, or both, of the days off.
- Alternate weeks of overtime with weeks of normal time.

www.libertymutualgroup.com

Wellness Tip

Stay on Budget

Focus on Savings –

Determine the amount you can afford to save each month and have it direct-deposited to your savings account.

Use Cash – Take out

enough cash to last one week at a time. Make up your mind that the cash is all you have for discretionary expenses.

Turn Down the Heat –

The recommended winter thermostat setting when people are at home is 68°F. Estimated savings per degree is 1-3%.

Cut Bad Habits –

Whether it's alcohol, tobacco, or buying a fancy latte every morning, you know how expensive those daily habits can be. Stop and put the money toward your other expenses.

Pay Down Debt –

Choose one card, ideally the highest interest rate card, and pay as much as you can on it every month.

Pay the minimum balance on other cards until you've paid off the first card. Repeat the process with other credit cards. Seeing the progress will help you stay focused.

money.howstuffworks.com



Values

Professionalism

Integrity

Mutual Respect

Discipline

MER on the West Coast

MER recently opened its first west coast Resource Center (RC) in Kent, WA, just outside of Seattle. The Seattle team is comprised of selected individuals from multiple existing MER Resource Centers brought together to launch the new location and continue driving MER's Best-in-Class safety program in the new region.

Advantageously, Drummac's (DRU) Lakewood and Everett locations are less than an hour away from the Seattle RC, allowing MER and DRU to work, learn, and share resources with each other. This has given MER employees the opportunity to learn more about the rail industry and assist Drummac with tasks such as rail car cleaning. Meanwhile, DRU employees are offered hybrid HAZWOPER training so they may participate in industrial cleaning and remediation services outside of the rail industry. MER and DRU have already successfully completed several projects together and are preparing for many more. As always, MER encourages employees to develop and expand their skill sets, and this relationship is just one more demonstration of the benefits for all involved.



Island Spill Response - WA

On July 10, 2013, a fire was reported on the Ocean Alexander mega yacht located in Friday Harbor, WA. The Fire Department, U.S. Coast Guard, and local response teams were dispatched to contain the fire, as well as recover the approximated 1,600 gallons of diesel fuel inside the submerging vessel. MER's team and vacuum truck traveled 100 miles to board a ferry headed for the island to assist in the response. Upon arrival and equipped with PFDs, the MER team began removing fuel from the surface of the water with sorbent material, as well as assist divers with extracting fuel from the vessel. The vessel was finally raised after a 3-day effort, and although the fire was no longer a hazard, it left an abundance of debris and damage onboard obstructing the path needed to access the fuel tanks. Onsite teams worked together to clear as much debris as possible as the MER team carefully made their way to the tanks and successfully removed the remaining fuel. All-in-all it was a classic demonstration of a safe and successful MER response.

Employee Development Corner

Effective Tailgate Safety Meetings Tips

- 1. Lead it. Don't read it.** – Ask questions and make eye contact with employees on team.
- 2. Keep close proximity.** – Ensure everyone is in the same area when you begin.
- 3. Use props.** – Talking about Fall Protection? Grab a harness.
- 4. Eliminate distractions.** – Shut off noise sources or move meeting to another area. Also, remember to project your voice.
- 5. Rotate tailgate meeting leaders.** – Employees who participate are more likely to take ownership
- 6. Ask engaging questions.** – Allow employees to have input.

Ask Engaging Safety Meeting Questions

There are two kinds of questions: closed and open. Closed questions have yes or no answers.

Open questions provide more information, as well as engage and transfer ownership to employees.

Examples:

Closed Question: Is everyone going to work safely today?

Open Question: How are you going to work safely today?



MORAN ENVIRONMENTAL
RECOVERY LLC

Safety Brief

PHONE
(251) 284-1525

FAX
(866) 311-4762

EMAIL
safety@
moranenvironmental.com

