LEADING INDICATORS THAT PREDICT SAFE CONSTRUCTION PROJECTS

By Jacqueline Bollas Caldwell, Esq.

A recent study identified leading indicators that predict safer construction project sites. The report, entitled “Construction Safety Best Practices and Relationships to Safety Performance,” reviewed the effectiveness of dozens of “passive” and “active” leading indicators of safety at large building projects. This study also appears in the online edition of the American Society of Civil Engineers’ Journal of Construction Engineering and Management.

The study identified 14 passive indicators (which include programs intended to protect workers, such as a safety plan mandating wearing steel-toe boots) as the most effective and identified that projects with the lowest injury rates were those that used most of the following 14 passive indicators. For example, projects that implemented more than 80% of the passive indicators below had an injury rate of 0.43 for every 200,000 worker hours, while projects that implemented 20% to 40% of the indicators experienced an injury rate of 3.02. The 14 effective passive indicators were:

- Owner review and approval of safety plan,
- Participation of all contractors in safety meetings,
- Site-specific safety orientation for all managers,
- 100% steel-toe boots policy,
- Medical facility on-site,
- First aid log maintained,
- Minimum ratio of safety professionals to workers,
- Worker-to-worker observation program,
- Worker involvement in perception surveys,
- Foremen involved in safety policy,
- Contracts that set a minimum ratio of safety supervisors to workers,
- Safety considered during the design phase, and
- Formal safety review team determining disciplinary actions.

The report also recommended 13 active leading indicators, such as reporting near misses and safety auditing programs. The report also identified one passive indicator that was more often linked to higher injury rates (projects where workers were rewarded for not being injured).

If you need any additional information, please feel free to contact Jacqueline Bollas Caldwell of Krugliak, Wilkins, Griffiths & Dougherty Co., L.P.A. at 330-244-2864 or jcaldwell@kwgd.com.

NOTE: This general summary of the law should not be used to solve individual problems since slight changes in the fact situation may require a material variance in the applicable legal advice.
Q: It’s getting hot outside, how can I tell if someone is having a heat related illness?

A: As the outside temperature and humidity rises in the summer months, employees must be aware of the need to drink more fluids due to the summer heat. Equally important, is the need for employers and fellow employees to know the signs and symptoms of the different heat related illnesses and how to help an affected employee.

Heat stroke, the most serious form of heat-related illness, happens when the body becomes unable to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Signs include confusion, loss of consciousness, and seizures. "Heat stroke is a medical emergency that may result in death! Call 911 immediately."

Heat exhaustion is the body's response to loss of water and salt from heavy sweating. Signs include headache, nausea, dizziness, weakness, irritability, thirst, and heavy sweating.

Heat cramps are caused by the loss of body salts and fluid during sweating. Low salt levels in muscles cause painful cramps. Tired muscles—those used for performing the work—are usually the ones most affected by cramps. Cramps may occur during or after working hours.

Heat rash, also known as prickly heat, is skin irritation caused by sweat that does not evaporate from the skin. Heat rash is the most common problem in hot work environments.

The chart to the left shows symptoms and first aid measures to take if a worker shows signs of a heat-related illness.

<table>
<thead>
<tr>
<th>Illness</th>
<th>Symptoms</th>
<th>First Aid</th>
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</table>
| **Heat stroke** | + Confusion  
+ Fainting  
+ Seizures  
+ Excessive sweating or red, hot, dry skin  
+ Very high body temperature | Call 911  
While waiting for help:  
+ Place worker in shady, cool area  
+ Loosen clothing, remove outer clothing  
+ Fan air on worker; cold packs in armpits  
+ Wet worker with cool water; apply ice packs, cool compresses, or ice if available  
+ Provide fluids (preferably water) as soon as possible  
+ Stay with worker until help arrives |
| **Heat exhaustion** | + Cool, moist skin  
+ Heavy sweating  
+ Headache  
+ Nausea or vomiting  
+ Dizziness  
+ Light headedness  
+ Weakness  
+ Thirst  
+ Irritability  
+ Fast heart beat | + Have worker sit or lie down in a cool, shady area  
+ Give worker plenty of water or other cool beverages to drink  
+ Cool worker with cold compresses/ice packs  
+ Take to clinic or emergency room for medical evaluation or treatment if signs or symptoms worsen or do not improve within 60 minutes.  
+ Do not return to work that day |
| **Heat cramps** | + Muscle spasms  
+ Pain  
+ Usually in abdomen, arms, or legs | + Have worker rest in shady, cool area  
+ Worker should drink water or other cool beverages  
+ Wait a few hours before allowing worker to return to strenuous work  
+ Have worker seek medical attention if cramps don't go away |
| **Heat rash** | + Clusters of red bumps on skin  
+ Often appears on neck, upper chest, folds of skin | + Try to work in a cooler, less humid environment when possible  
+ Keep the affected area dry |

* Remember, if you are not a medical professional, use this information as a guide only to help workers in need.
Summer has arrived; the Ohio Bureau of Workers' Compensation (BWC) is reminding workers whose jobs expose them to the elements to take precautions when working in the heat.

We want to bring attention to this important issue as the summer days heat up. Working in the heat can be so dangerous," said Ohio BWC Administrator/CEO Steve Buehrer. "The good news is that injuries or even deaths are preventable if employers and workers take the time to become familiar with warning signs and know how to respond."

The summer months present particular dangers to outdoor workers, and one of the most serious is heat illness. The Occupational Safety & Health Administration reports thousands of workers in the United States got sick from exposure to heat on the job, and more than 30 workers died last year.

Educate employees on what the warning signs of heat illness are and give tips for preventing an emergency, including:
- Hydrate with water every 15 minutes, even if you aren't thirsty;
- Cover up with light clothes and a hat;
- Rest regularly in cool shaded areas.

Workers are also encouraged to watch out for each other and take action if a coworker is exhibiting signs of heat illness. Additionally, because many outdoor workers change job sites routinely, it's important to become familiar with the work location in case there is a need to call for help.

"We encourage workers to be cautious and employers to partner with BWC by bringing attention to the importance of accident and injury prevention through safety education and training all year long," added Buehrer.

Visit www.ohiobwc.com's Safety Service Section for more information about preventing accidents and injuries on the job.

Coming Next Month  August 8, 2013

Topic:  I've Fallen And I Can't Get Up!  
(Words you don't want to hear from your employers)

Speaker:  Dave Gallegly, Fall Protection Specialist for Miller Fall Protection which is now owned by Honeywell Safety Products

Spotlight Company:

UPCOMING SCSC EVENTS & DATES

Sept. 26—Confined Space Training at the Canton Regional Chamber—more info to follow.


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Calling All Safety, Health and Human Resource Vendors

2013 “Safety, Health & Human Resources Fair
Sponsored by: The Stark County Safety Council
Thursday, Sept. 12th from 11:00 a.m. – 1:00 p.m.
Meyer’s Lake Ballroom, 3218 Parkway St., Canton, Ohio

This is your chance to network with more than 250 safety, human resource and health & environmental professionals
Gain fantastic exposure for your company’s product, service or technology

Cost: $100.00 per space if registered and payment is received by 08/01/2013
– After 08/01/2013- the cost is $150.00

Cost Includes: 1 Round Table w/ Linen Tablecloth & 2 Chairs (note: tables are not skirted)
  Two lunches (*additional guests- $16.00 each)
  Listing on The Stark County Safety Council Website and Stark County Safety Council Facebook Page

Electricity is based upon request and availability- we encourage you to register early.
Doors for vendors to open at 9:30 a.m.
Vendors Must Be Set Up By 10:30 a.m. – No Exceptions
Nothing can be brought in the day before and all materials must be removed immediately after the Safety Fair.

Reserve your exhibit space today; contact Stark County Safety Council Program Manager, Connie Cerny at (330) 458-2061 or conniec@cantonchamber.org.

“The Stark County Safety Council was once again named one of the “top” safety councils in Ohio by the Ohio Bureau of Worker’s Compensation!”