



STARK COUNTY

SAFETY COUNCIL

member news

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Industrial Hygiene— What is it?

*Provided by Curt Speck, President
Safety Resources Company of Ohio and
SCSC Steering Committee Member*

Industrial Hygiene is defined by OSHA as the science of anticipating, recognizing, evaluating, and controlling workplace conditions that may cause workers' injury or illness.

The Evolution of Industrial Hygiene

Industrial Hygiene is not a new concept, the science has been in existence as early as the 4th century B.C. when lead toxicity was identified in the mining industry. The 1st century brought light and identified health risks to workers exposed to zinc and sulfur. This acknowledgement led to the creation of the first face mask from an animal bladder to protect workers from exposure to dust and lead fumes. More and more information began to surface identifying diseases, hazards, and prescribed preventative measures for miners published in 1566.

In 1700, the first comprehensive book of occupational diseases was introduced by Italian born, Bernardo Ramazzini, (the Father of Industrial Medicine), he asserted that occupational diseases be studied in the work

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September 12, 2019

**“Stark County
Safety Council Safety,
Health & Human
Resources Fair”**

Upcoming Safety Events

Drug Free Safety Program Training

Thursday, Sept. 19, 2019—8:00 a.m.-10:00 a.m.
Local 33 Sheet metal Workers Union Hall
1890 Venture Cir. SE, Massillon
FREE—www.starkcountysc.com

Fire Prevention Breakfast

Wed. Oct. 9, 2019—8:00 a.m.-9:30 a.m.
First Christian Church, 6900 Market Ave. N.,
Canton, OH 44721
Fee—www.starkcountysc.com

*Ohio Safety Congress & Expo

March 11 to 13, 2020 in Columbus
SafetyCongress@bwc.state.oh.us

***Due to this event, the SCSC March 2020
luncheon will be moved to March 19th!**

Stark County Safety Council Mission Statement: *To provide a forum for safety and health information, education and networking in Stark County, through leadership, innovation, facilitation, program, and support, in partnership with other public and private organizations.*

environment and not in hospitals. In England, Parliament passed the Chimney Sweepers Act of 1788, and in 1833 the English Factory Acts marked the first legislative acts in industrial safety. This led to other European nations developing worker's compensation acts which stimulated factory safety precautions and the establishment of medical services within industrial plants.



Dr. Alice Hamilton, led the efforts in the 20th century to improve industrial hygiene. She observed conditions in mines and factories and presented evidence to provide correlation between worker illness and exposure to toxins with proposals to eliminate unhealthy work conditions. In 1908, public awareness of occupational diseases stimulated the passage of compensation acts some civil employees and the first worker's compensation laws were passed in 1911. In 1913 the New York Dept. of Labor and Ohio Dept. of Health launched the first state industrial hygiene programs encouraging all states to enact the program by 1948.

The U.S. Congress was landmark in passing the following legislation in regards to safeguarding worker's health. *1966 The Metal and Non-Metallic Mines Safety Act, 1969 Federal Coal Mine Safety and Health Act, and The Occupational Safety and Health Act of 1970.*

What do Industrial Hygienists do?

Industrial Hygienists are tasked with analyzing, identifying, and measuring workplace hazards or stressors that can cause sickness, impaired health, or significant discomfort in workers through chemical, physical, ergonomic, or biological exposures.

What are some examples of Job Hazards?

- Air Contaminants: Particulate – Gas – Vapor
- Chemical Hazards: Inhalation – Absorption – Ingestion
- Biological Hazards: Direct entry – Broken skin entry
- Physical Hazards: Radiation – Noise – Vibration – Illumination – Temperature
- Ergonomics: Lifting – Holding – Pushing – Walking - Reaching

Industrial hygiene encompasses an extensive range of work environments. Elements in developing a successful health and safety management program are:

- Management Commitment
- Employee Involvement
- Worksite Analysis
- Hazard Prevention and Control
- Safety and Health Training
-

When these elements are in place it helps create a safe and healthy work environment for everyone.

Safety Tip of the Month

Provided by Troy Manion, Safety Director, Hilscher-Clarke & Vice Chair SCSC Steering Committee

HEAT EXHAUSTION	OR	HEAT STROKE
Faint or dizzy		Throbbing headache, confusion
Excessive sweating		No sweating
 Cool, pale, clammy skin	 Body temperature above 103° Red, hot, dry skin	
Nausea or vomiting		Nausea or vomiting
Rapid, weak pulse		Rapid, strong pulse
Muscle cramps		May lose consciousness 
<ul style="list-style-type: none">• Get to a cooler, air conditioned place• Drink water if fully conscious• Take a cool shower or use cold compresses	<p>CALL 9-1-1</p> <ul style="list-style-type: none">• Move person to cooler place• Cool using cool cloths or bath• Do not give anything to drink	

Q: What are my safety risks in dealing with fluorescent bulbs pertaining to mercury? How can I avoid mercury exposure from fluorescent bulbs?

A: Metallic mercury poses health risks from inhalation and skin exposure. Tubular or compact fluorescent bulbs contain small amounts of the metal mercury sealed inside. If fluorescent bulbs are broken, small amounts of mercury will be released into the environment. Proper cleanup will reduce workers' exposure to the low levels of mercury anticipated when a fluorescent bulb is accidentally broken.



How Workers Can Be Exposed

- Breathing mercury vapor in the air
- Skin contact with mercury

Health Effects and Symptoms

- Signs of mercury poisoning include tremors; mood, memory or coordination changes; and skin irritation or allergy
- Exposure to mercury can harm unborn children

Preventing Accidental Breakage

- Handle bulbs carefully and store away from workers
- Package bulbs in a sturdy container to prevent breakage
- Label containers of fluorescent bulbs

Safe Cleanup of Broken Fluorescent Bulbs

- Notify workers and tell them to stay away from the area
- Open any windows and doors to air out the room
- Do not use a broom or vacuum cleaner unless the vacuum cleaner is specifically designed to collect mercury
- Wear appropriate disposable chemical-resistant gloves
- Use a commercial mercury spill kit if available, or scoop up pieces of glass and powder with stiff paper or cardboard to avoid contact with the broken glass
- Use sticky tape to pick up any remaining pieces of glass
- Wipe down hard floors with a damp paper towel
- Place all pieces of glass and cleanup materials in a sealable plastic bag or a glass jar with a lid
- Wash your hands thoroughly after cleanup

Disposing of Fluorescent Bulbs

- Follow EPA and state government regulations for disposal of fluorescent bulbs and mercury-contaminated waste.

Visit the EPA's website for more information

<http://www.epa.gov/osw/hazard/wastetypes/universal/lamps/index.htm>

Working in Hot Environments

Provided by Curt Speck, President, Safety Resources Company of Ohio and SCSC Steering Committee Member

Each year, thousands of workers become ill from exposure to hot environments—some even die.

Who is at risk when the temperature goes up?

Construction workers account for about one third of heat related deaths but workers in every industry where exposure to the outdoors occurs such as agriculture, oil and gas operations, landscaping and transportation are also at risk.

Heat Exhaustion occurs when the body cannot cool itself adequately. Dehydration occurs when water loss from excessive sweating causes muscle cramps, weakness, and nausea and vomiting. The nausea and vomiting make it difficult to drink enough fluid to replenish the body's water supply, and the lack of body water impairs further sweating, evaporation and cooling.

As dehydration increases from the loss of body water, lightheadedness may occur and fainting may occur, especially if the affected individual stands up



quickly. The person also may have a low-grade fever.

Individuals with heat exhaustion tend to have symptoms such as:

- Profuse sweating
- Weakness
- Muscle cramps
- Headache
- Nausea & vomiting

Heat exhaustion usually can be treated by replacing the lost fluids, keeping well hydrated, and finding a cool place to rest. Water, electrolyte replacement solutions, or sport drinks are appropriate to consume.

Seek medical attention when:

Nausea and vomiting prevent rehydration

When rehydration cannot relieve recurrent cramps.

Call for Emergency Services as Heat Stroke may be developing if:

- The person stops sweating
- Becomes confused
- Has a seizure

The effected individual should be moved to a cooler place, remove clothing, attempt to cool the body with cold compresses, spraying or sponging the body with cool water and promote air circulation with oscillating fans.

FREE BWC SAFETY CLASSES

Free BWC safety classes available at North Canton Service office. See the [BWC catalog](#) for class descriptions.



First Aid in the Workplace—Sept. 12—8:30-4:30 pm

September 17—Hazardous Waste Operations & Emergency Response Awareness—8:30-Noon

OSHA10: Industry Safety Basics—Oct 1-2—8:30-4:30 pm each day

Train The Trainer Techniques for Safety—Oct. 29-30—8:30-4:30 (Oct. 29) and 8:30-Noon (Oct. 30)

Resources

- The BWC Library creates a monthly 'Safety Update' available at www.bwc.ohio.gov
- Occupational Health & Safety Administration—www.osha.gov

October 10, 2019

Importance of Vaccines in 2019

Susan Seifert RN,BC
Immunization Program Coordinator/Lead Case Manager
Stark County Health Department

Spotlight Company:



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*Stark County Safety Council
August 2019 Photos*



August Speaker: Dave Dennison,
Safety Specialist
Werner Ladder and Fall Protection
Represented by Flaherty Sales Co.

**August Spotlight Company
Superior Search Group**

