

Safety Lines

Avoiding the dangers of summer heat, humidity

Heat-related illnesses can be deadly. Thousands of people become sick each year, and many die, due to preventable heat-related illnesses. With summer temperatures rising, now is the best time to prepare for working in excessive heat by following a few simple steps.

Know the signs, take action

It's important to know the signs of heat-related illness; acting quickly can prevent more serious medical conditions and may even save lives.



- **Heat stroke** is the most serious heat-related illness and requires immediate medical attention. Symptoms include: confusion, fainting, seizures, very high body temperature, and skin that's hot and dry or profusely sweating. Call 911 if a coworker shows signs of heat stroke.
- **Heat exhaustion** is also a serious illness. Symptoms include: headache, nausea, dizziness, weakness, thirst and heavy sweating.
- **Heat fatigue and heat rash** are less serious, but are still signs of too much heat exposure.

If you or a coworker has symptoms of heat-related illness, tell your supervisor right away. If you can, move the person to a shaded or cooler area, loosen their clothing, give them water (a little at a time) and cool them down with ice packs or cool water.

Heat-related-illness prevention programs

It is important for employers to implement programs to protect employees who are exposed to excessive heat from the dangers of heat-related illnesses. As with all safety and health hazard prevention programs, the hierarchy of controls dictates engineering controls be used first to reduce employee exposure to heat. The OSHA Technical Manual outlines elements of an effective heat-related-illness prevention program at www.osha.gov/dts/osta/otm/otm_iii/otm_iii_4.html. The following suggested controls are taken from the OSHA Technical Manual.

Possible engineering controls may include:

- using air conditioning;
- increasing general ventilation;
- providing cooling fans;

- running local exhaust ventilation where heat is produced (such as laundry vents);
- using reflective shields to block radiant heat;
- insulating hot surfaces (such as furnace walls);
- stopping leaking steam; and
- providing shade for outdoor worksites.

If engineering controls are not feasible or are not effective in reducing employee exposures, administrative controls are another way to protect employees.

Possible administrative controls may include:

- acclimatizing workers starting the first day of working in the heat;
- re-acclimatizing workers after extended absences;
- scheduling work earlier or later in the day;
- using work/rest schedules;
- limiting strenuous work (such as carrying heavy loads); and
- using relief workers when needed.



When engineering and administrative controls are not enough, personal protective equipment (PPE) is a way to provide supplemental protection.

Possible supplemental protection may include:

- fire proximity suits;
- water-cooled garments;
- air-cooled garments;
- cooling vests;
- wetted over-garments;
- sun hats;
- light-colored clothing; and
- sunscreen.

An effective heat-related-illness prevention program should include a worker acclimatization program, heat alert program and medical monitoring program. It should also establish an effective training program that includes how to recognize heat-related illness symptoms and what to do when there is a heat-related illness emergency. OSHA recognizes it may not always be feasible to implement all elements in all workplaces; however, implementing as many elements as possible will make the program as effective as possible.

The National Institute for Occupational Safety and Health (NIOSH) also released its revised Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments in February 2016. The book is an in-depth analysis of heat-stress factors, including heat balance and heat exchange, biologic effects of heat, the different methods of measuring heat stress, control of heat stress, basis for a standard and further research needs. The book can be accessed at www.cdc.gov/niosh/docs/2016-106.



Standards update:

Recordkeeping, respirable crystalline silica, beryllium

Electronic submission of injury and illness records to OSHA

www.gpo.gov/fdsys/pkg/FR-2016-05-12/pdf/2016-10443.pdf

Minnesota OSHA (MNOSHA) Compliance has adopted the Final Rule to Improve Tracking of Workplace Injuries and Illnesses. MNOSHA Compliance adopted the rule as written in 29 CFR 1904; however, it expanded the list of industries in Appendix A to include all NAICS codes.



All establishments with 20 or more employees are required to submit their OSHA Form 300A Summary of Work-related Injuries and Illnesses data by using federal OSHA's Injury Tracking Application at www.osha.gov/injuryreporting. At this time, federal OSHA is not accepting Form 300 or Form 301 information from any employer. Employers should have submitted data for calendar-year 2017 by July 1, 2018. Calendar-year 2018 data will need to be submitted by March 2, 2019.

Respirable crystalline silica in general industry – 29 CFR 1910.1053

Most elements of the general industry silica standard – 29 CFR 1910.1053 – became effective June 23, 2018. Exceptions are: “medical surveillance for employees who will be exposed over the action level 30 days or more a year” is not required until June 23, 2020; and engineering controls for hydraulic fracturing operations must be implemented by June 23, 2021.

Among other things, the standard requires employers to:

- assess employee exposures to silica if the exposure may be at or above an action level of 25 $\mu\text{g}/\text{m}^3$ (micrograms of silica per cubic meter of air), averaged over an eight-hour day;
- protect workers from respirable crystalline silica exposures above the permissible exposure limit (PEL) of 50 $\mu\text{g}/\text{m}^3$, averaged over an eight-hour day;
- limit workers' access to areas where they could be exposed above the PEL;
- use dust controls to protect workers from silica exposures above the PEL;
- provide respirators to workers when dust controls cannot limit exposures to the PEL;
- use housekeeping methods that do not create airborne dust, if feasible;
- establish and implement a written exposure control plan that identifies tasks that involve exposure and methods used to protect workers;
- offer medical exams, including chest X-rays and lung function tests, every three years for workers exposed at or above the action level for 30 or more days a year;
- train workers about work operations that result in silica exposure and ways to limit exposure; and

- keep records of exposure measurements, objective data and medical exams.

Beryllium in general industry – 29 CFR 1910.1024

MNOSHA Compliance has adopted the general industry standard for beryllium – 29 CFR 1910.1024. The new standard implements the following key provisions:

- reduces the permissible exposure limit for beryllium to 0.2 micrograms per cubic meter of air, averaged over eight hours;
- establishes a new short-term exposure limit for beryllium of 2.0 micrograms per cubic meter of air over a 15-minute sampling period;
- requires employers to use engineering and work practice controls (such as ventilation or enclosure) to limit worker exposure to beryllium, provide respirators when controls cannot adequately limit exposure, limit worker access to high-exposure areas, develop a written exposure control plan and train workers about beryllium hazards; and
- requires employers to make available medical exams to monitor exposed workers and provides medical removal protection benefits to workers identified with a beryllium-related disease.

At this time, MNOSHA Compliance is only enforcing the following:

- permissible exposure limits in the general industry standard at 1910.1024(c);
- general industry exposure assessment at 1910.1024(d);
- general industry respiratory protection at 1910.1024(g);
- general industry medical surveillance at 1910.1024(k); and
- general industry medical removal at 1910.1024(l).

For more information about the rule, visit www.osha.gov/berylliumrule.

Free on-site safety and health consultations available

Minnesota OSHA (MNOSHA) Workplace Safety Consultation offers free consultation services, where employers can find out about potential hazards at their worksites, improve safety management systems and apply for grants to abate safety standards.

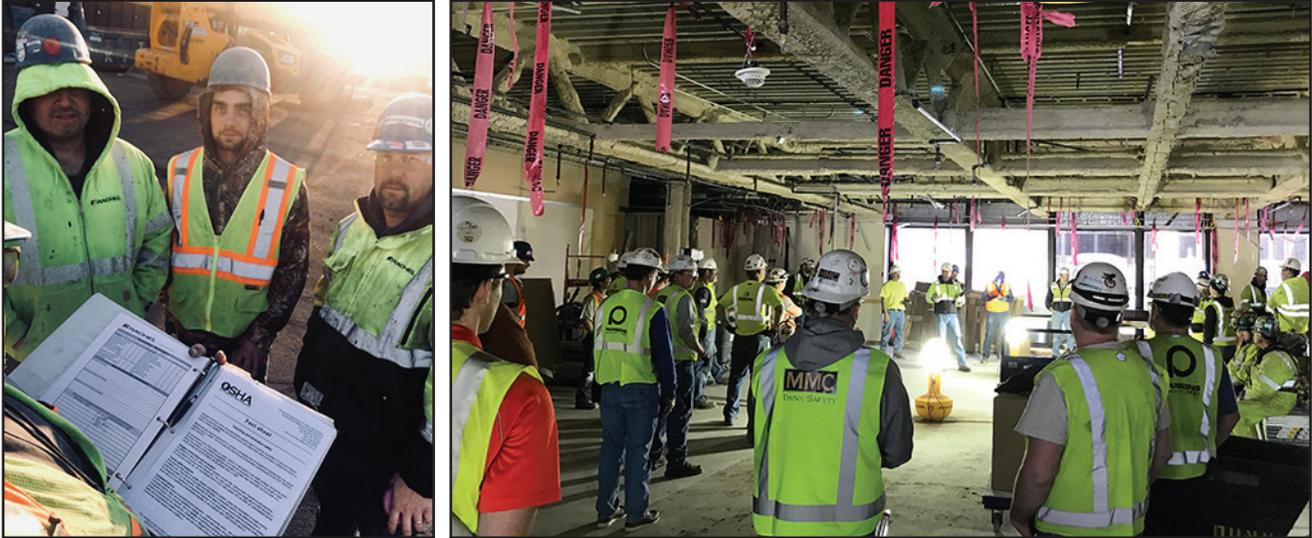
The program targets small, high-hazard businesses. It is separate from Minnesota OSHA Compliance inspection activities and no citations are issued as part of a consultation visit.



Learn more and request a consultation

Web: www.dli.mn.gov/Wsc/Assistance.asp • Email: osha.consultation@state.mn.us • Phone: 651-284-5060

Employers break for safety during Excavation Safety Stand-down



Employees from Rachel Contracting, Inc. (left) and JE Dunn Construction (right) participate during the second annual statewide Excavation Safety Stand-down observance in April to bring awareness to the hazards of excavation sites.

In observance of Minnesota OSHA (MNOSHA) Compliance's second annual statewide Excavation Safety Stand-down, April 16 through 20, at least nine Minnesota employers designated time in their workday to discuss the hazards associated with working in and around excavations. The goal of the safety stand-down is to bring awareness to the potential hazards employees may face while working with excavations. Since 2015, MNOSHA Compliance has responded to three work-related fatalities in this industry.

A critical part of excavation safety is the involvement of a competent person, defined as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." A daily inspection of excavations is required to be completed by a competent person before the start of work and as needed throughout the shift. These inspections are the key to making sure all hazards have been identified and adequate protective measures are in place.

The most significant hazard when working in any excavation is cave-ins. Every excavation greater than five feet deep requires a cave-in protection system. There are multiple methods of protection that an employer can implement to keep employees safe while working in an excavation, including sloping, shoring and shielding.

Since 2017, MNOSHA Compliance has cited employers 43 times for employees with inadequate protective systems working in an excavation. The competent person must ensure every employee working in an excavation, for any duration, is adequately protected from cave-in hazards. Other commonly cited hazards include the lack of access/egress and the placement of the spoil pile. The standards require that when working in an excavation greater than four feet deep, access/egress is provided and the spoil pile cannot be closer than two feet from the edge of the excavation.

Take time out of each workday, before the start of any excavation work, to identify the hazards that employees will face. Preplan your jobs to ensure appropriate equipment is readily available to address changing conditions and eliminate any potentially fatal mistakes.

Gina Hoffman recognized with Arthur E. McCauley Jr. Award

Minnesota Safety Council Director of Continuing Education Gina Hoffman received the 2019 Arthur E. McCauley Jr. Award during the Governor's Safety Awards program, part of the Minnesota Safety Council's 84th annual safety and health conference May 8 through 10.

Hoffman is retiring after 32 years with the Minnesota Safety Council (MSC) where she managed the workplace safety training and consulting program, and coordinated and delivered training, consulting and events that reach 9,000 people each year.

Hoffman has also established MSC as the leading training center in the Northern Illinois University OSHA Training Institute network by consistently having more classes for more students than any other site. She also planned and coordinated the annual safety and health conference, Northern Regional Safety Day (Duluth), Northern Minnesota Safety Conference (Bemidji) and the Southern Regional Safety Day (Mankato) for the duration of her tenure. Hoffman has been a tireless champion of safety at MSC and, previously, at Midwest Center for Occupational Health and Safety.

The Arthur E. McCauley Jr. Award is presented annually by Minnesota OSHA Compliance, in consultation with the Occupational Safety and Health Advisory Council (OSHAC), to honor a safety professional who is an example of safety excellence and is an individual who possesses high ideals and strong personal character. Winners have gone beyond the ordinary call of duty and made efforts to improve the quality of safety and health in Minnesota's workplaces. They demonstrate innovation in implementing safety programs and effectively handle complex safety and health concerns.

The award is named for Arthur E. McCauley Jr., a former MSC manager and OSHAC member, who is recognized for his dedication and tireless efforts to improve the safety and health of Minnesota's workplaces.



Gina Hoffman receives the Arthur E. McCauley Jr. Award, May 10.

Metropolitan State University earns Governor's Safety Award



In recognition of excellence in workplace safety and health, Metropolitan State University received a Meritorious Achievement Award during the Governor's Safety Awards luncheon May 10 at the Minneapolis Convention Center.

The luncheon is part of the Minnesota Safety Council's annual Safety and Health Conference. Metropolitan State University was one of 279 employers to be honored during the event, the only university among the honorees.

The 2019 Minnesota Safety and Health Conference will be May 7 through 9. Visit www.minnesotasafetycouncil.org for more.

Minnesota's newest **MNSHARP** Construction worksites



Minnesota Safety and Health Achievement Recognition Program (MNSHARP) Construction is a Minnesota Occupational Safety and Health Administration (MNOSHA) program that recognizes major-construction companies where managers and employees work together to develop safety and health programs that go beyond basic compliance with all applicable OSHA standards and result in immediate and long-term prevention of job-related injuries and illnesses.

Only construction projects at least 18 months in duration are eligible for participation in MNSHARP Construction.

MNSHARP Construction began in Minnesota in 2007. There are currently nine approved MNSHARP Construction worksites.

Learn more about MNSHARP Construction online at www.dli.mn.gov/WSC/MnsharpConstruction.asp.



**Adolfson and Peterson Construction – Sherburne Government Center
Elk River, Minnesota**



**McGough Construction – Land O'Lakes Addition
Arden Hills, Minnesota**



**Opus Design Build LLC – Lincoln Way/Loden
Edina, Minnesota**

Minnesota's newest **MNSHARP** worksite



K&K Fabrication – Austin, Minnesota

The Minnesota Safety and Health Achievement Recognition Program (MNSHARP) recognizes companies whose managers and employees work together to develop safety and health programs that go beyond basic compliance with all applicable OSHA standards and result in immediate and long-term prevention of job-related injuries and illnesses. Learn more about MNSHARP at www.dli.mn.gov/WSC/Mnsharp.asp.

Safe + Sound Week, Aug. 13 through 19, is a nationwide event to raise awareness and understanding of the value of safety and health programs that include management leadership, worker participation and a systematic approach to finding and fixing hazards in workplaces.



Learn more: www.osha.gov/SafeAndSoundWeek

Stay in touch with need-to-know news; sign-up for email lists

Stay up to date with DLI by signing up for our newsletters and email lists. Available topics include:

- apprenticeship
- building officials
- labor standards
- prevailing wage
- permit technicians
- rulemaking
- workers' compensation
- and more

LABOR AND INDUSTRY



Sign up at

www.dli.mn.gov/EmailLists.asp

Minnesota's newest **MNSTAR** worksites



Delta Air Lines, Inc. Customer Engagement Center – Chisholm, Minnesota

The Minnesota STAR (MNSTAR) Program is a Minnesota Occupational Safety and Health Administration (MNOSHA) program that recognizes companies where managers and employees work together to develop safety and health management systems that go beyond basic compliance with all applicable OSHA standards and result in immediate and long-term prevention of job-related injuries and illnesses.

Learn more about the MNSTAR Program at www.dli.mn.gov/WSC/Mnstar.asp.



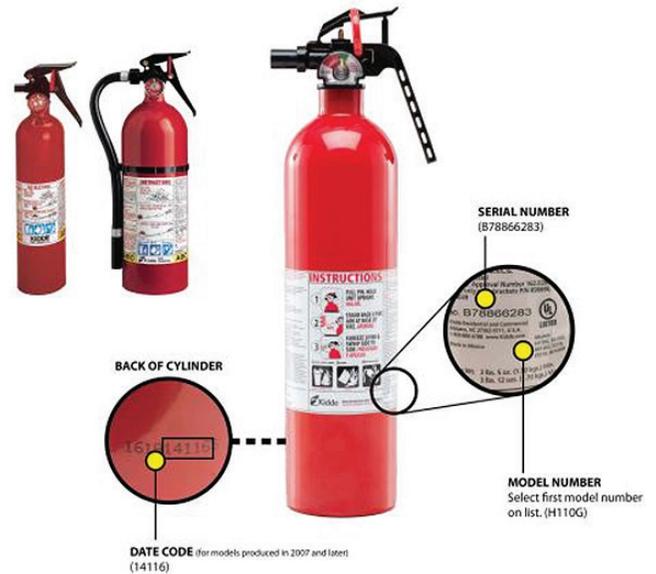
Cintas Corporation – Egan, Minnesota

Kidde recalls fire extinguishers

Kidde, a subsidiary of United Technologies, is recalling an estimated 37.8 million fire extinguishers. The recall covers 134 different models manufactured between Jan. 1, 1973, and Aug. 15, 2017.

At issue

The fire extinguishers can become clogged or require excessive force to discharge and can fail to activate during a fire emergency. In addition, the nozzle can detach with enough force to pose an impact hazard. There has been at least one fatality connected with these extinguishers.



Affected models

Affected models: have straight plastic handles; are red, white or silver; and are rated either ABC or BC. Kidde Pindicator extinguishers manufactured between Aug. 11, 1995, and Sept. 22, 2017, are also included in the recall. These plastic, push-button extinguishers are red or white with red or black handles.

See if your extinguisher is included

To help determine if your extinguisher is covered by the recall, Kidde has created a short video, online at www.youtube.com/watch?v=X5Xmh1VmZHo&feature=youtu.be, which also explains how to request a free replacement extinguisher.



More information

For more information, contact Kidde or the Consumer Product Safety Council.

Kidde

- 855-271-0773
- <https://inmarmarketaction.com/kidde>

Consumer Product Safety Council

- 800-638-2772
- www.cpsc.gov/Recalls/2017/kidde-recalls-fire-extinguishers-with-plastic-handles-due-to-failure-to-discharge-and#.Wfr3FggcNkQ.



One log, two data collection programs

By Brian Zaidman, Research and Statistics

Minnesota employers with 20 or more employees are now required to report OSHA log summary data (OSHA Form 300A) electronically to OSHA. Also, every year, some Minnesota employers are randomly selected to report their OSHA log information for the Survey of Occupational Injuries and Illnesses (SOII), a program administered by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). In 2019, the due date for the OSHA electronic reporting is March 2. This date is during the initial phase of the SOII data collection period. The existence of these two programs, both asking employers to provide OSHA log data, raises many questions for employers. This article uses answers to frequently asked questions from BLS to address some of the issues (see www.bls.gov/iif/oshfaq1.htm).

Employers participating in the SOII, with 20 employees or more, need to also submit data to OSHA
OSHA's electronic reporting requirements do not change requirements for reporting for the BLS SOII. Employers that have been notified that they have been selected to submit data for the SOII continue to be required by law to respond to the SOII. These same employers, if they have an establishment with 20 or more employees, also need to report to OSHA.

BLS realizes OSHA's new electronic data collection effort may occasionally require some employers to report injury and illness data to both OSHA and to BLS. BLS will continue to offer several ways to report data for the SOII to make the process as convenient as possible. However, BLS has begun researching alternative methodologies that may allow the use of OSHA-collected data in the future, as a way to minimize the reporting burden.

Federal law prohibits BLS from sharing nonpublic data

BLS is not permitted to share the identity of SOII respondents and the data employers provide to BLS is kept in strict confidence in accordance with its data integrity guidelines (see www.bls.gov/bls/data_integrity.htm) and with the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002 (see www.bls.gov/bls/confidentiality.htm). BLS uses data collected from the SOII for statistical purposes only, to estimate counts and rates of nonfatal workplace injuries and illnesses among U.S. workplaces. CIPSEA prohibits BLS from disclosing or releasing respondent data in identifiable form to unauthorized persons, including OSHA.

OSHA electronic reporting is different from reporting for the SOII

BLS is charged with providing accurate and statistically valid estimates of rates and counts of workplace injuries and illnesses in the United States and conducts the SOII annually for this purpose.

BLS reviews data extensively for accuracy and validity and may contact employers to verify data reported for the SOII or to correct things like typographical errors or anomalous data. To accurately estimate the injuries and illnesses occurring in each industry, BLS must ensure the data provided by employers is correct and that the employers match the establishments selected to participate annually in the SOII.

OSHA answers

frequently asked questions

As part of its continual effort to improve customer service and provide needed information to employers and employees, Minnesota OSHA (MNOSHA) Compliance answers the most frequently asked questions from the previous quarter.

Q. What is the maximum for weight an employee must lift?

A. There is no OSHA standard limiting the maximum weight an employee can lift or carry. Back injuries, whether from repetitive stress or from a single instance, are some of the most common injuries in the workplace. For more information about back injuries, visit the federal OSHA Ergonomics Safety and Health Topic page at www.osha.gov/SLTC/ergonomics.



Section VII, Chapter 1, of the OSHA Technical Manual deals exclusively with back disorders and injuries. It is online at www.osha.gov/dts/osta/otm/otm_vii/otm_vii_1.html and contains various procedures and forms to assist in the development of an ergonomics program.

Do you have a question for Minnesota OSHA? To get an answer, call 651-284-5050 or send an email message to osha.compliance@state.mn.us. Your question may be featured here.

Anniversary banners available for CHASE Minnesota contractors

Construction contractors partnered with Minnesota OSHA Compliance through its Construction Health and Safety Excellence (CHASE) Minnesota program can order new 15th anniversary banners.

Purchase a banner

The banners are available from Fastsigns in Roseville, Minnesota. They are 6 feet wide and 3 feet high; the cost is \$127 plus tax. To purchase a banner, contact Shanna Hoffman at Fastsigns at 651-631-1631 or 204@fastsigns.com.



About CHASE Minnesota

The Minnesota Department of Labor and Industry (DLI) implemented a major safety-initiative in 2003 that is designed to reduce the number of injuries, illnesses and fatalities at participant construction industry employers. The partnership was revised in 2012 and the initiative – Construction Health and Safety Excellence (CHASE) Minnesota – was jointly agreed to by Associated General Contractors of Minnesota and Minnesota OSHA Compliance.

The partnership charter acknowledges the importance of providing a safe, healthful work environment in construction and seeks a working relationship that creates mutual trust and respect among all parties, including project owners and construction workers, involved in the construction process.

Learn more about CHASE Minnesota at www.dli.mn.gov/OSHA/ChaseMnPartnership.asp.

MNOSHA Compliance signs safety, health partnerships

Minnesota OSHA (MNOSHA) Compliance recently signed five Level 3 Cooperative Compliance Partnerships with four companies working on four projects. Level 3 is the peak level of MNOSHA Compliance partnerships, with applicants striving to be an industry leader with very comprehensive safety and health programs.



The Boldt Company and Parsons Electric –Mayo Expansion and Renovation
Mankato, Minnesota

Three partnerships were signed under the Construction Health and Safety Excellence (CHASE) Minnesota program with Associated General Contractors (AGC) of Minnesota. Partnerships were signed with: **The Boldt Company** and **Parsons Electric** for the Mayo Expansion and Renovation project in Mankato, Minnesota, scheduled for completion in May 2019; and **Mathiowetz Construction Company** for the Gateway – TH 14/15 project in New Ulm, Minnesota, scheduled for completion Oct. 25, 2018.

Two partnerships were signed under the Minnesota Chapter of Associated Builders and Contractors (MN ABC) program with **Lyon Contracting, Inc.** for its projects: Cielo 3 Apartments in

Fridley, Minnesota, scheduled for completion in May 2019; and Urbana Senior Living in Brooklyn Park, Minnesota, scheduled for completion July 15, 2019.

Information about MNOSHA's partnerships is online at www.dli.mn.gov/OSHA/Partnerships.asp.



**Mathiowetz Construction Company – Gateway TH 14/15
New Ulm, Minnesota**



**Lyon Contracting, Inc. – Cielo 3 Apartments
Fridley, Minnesota**



**Lyon Contracting, Inc. – Urbana Senior Living
Brooklyn Park, Minnesota**

Minnesota OSHA's calendar of events

August 2018

Aug. 3 *Occupational Safety and Health Advisory Council*
www.dli.mn.gov/Oshac.asp

September 2018

Sept. 7 *Occupational Safety and Health Review Board*
www.dli.mn.gov/Oshrb.asp

October 2018

Oct. 24 *Logger Training – Grand Rapids*
www.dli.mn.gov/Wsc/Logging.asp

Oct. 25 *Logger Training – International Falls*
www.dli.mn.gov/Wsc/Logging.asp

Oct. 30 *Logger Training – Virginia*
www.dli.mn.gov/Wsc/Logging.asp

November 2018

Nov. 2 *Occupational Safety and Health Advisory Council*
www.dli.mn.gov/Oshac.asp

Nov. 27 *Logger Training – Cloquet*
www.dli.mn.gov/Wsc/Logging.asp

Nov. 29 *Logger Training – Bemidji*
www.dli.mn.gov/Wsc/Logging.asp

December 2018

Dec. 6 *Logger Training – Cloquet*
www.dli.mn.gov/Wsc/Logging.asp

Dec. 7 *Occupational Safety and Health Review Board*
www.dli.mn.gov/Oshrb.asp

Dec. 13 *Logger Training – Grand Rapids*
www.dli.mn.gov/Wsc/Logging.asp

See more at www.dli.mn.gov/EventsOSHA.asp

