

Safety Lines



National stand-down for fall prevention in construction

Minnesota OSHA (MNOSHA), along with federal OSHA, is promoting and participating in the "2014 National Fall Prevention Safety Stand-down," June 2 through 6, to raise awareness about preventing fall hazards in construction.

MNOSHA is partnering with key national safety and health groups, leading employers and employer organizations for this voluntary "safety stand-down" event that encourages employers to talk directly to employees about fall hazards and to reinforce the importance of fall prevention.

Fatalities caused by falls from elevation continue to be a leading cause of death for construction workers. In 2012, 269 of the 775 construction fatalities in the nation were the result of falls.

Construction companies are asked to stop work for a safety stand-down meeting focused on a related safety topic, such as ladder safety, fall-protection equipment or scaffold safety, to provide workers with information about hazards, protective methods and the company's safety practices, policies, goals and expectations.

Even though the safety stand-down begins in summer, fall-prevention resources, posters and participation information are already available online at www.dli.mn.gov/OSHA/Falls.asp.

Beginning June 2, companies can print a participation certificate at www.osha.gov/StopFallsStandDown and share a photo from their safety stand-down meeting on Twitter using [#standdown4safety](https://twitter.com/standdown4safety).

Spring is here, is flooding far behind?

By Alden Hoffman, OSHA Management Team Director, Health

Most Minnesotans would likely say they don't need Minnesota OSHA (MNOSHA) to tell them it's been a harsh winter. But what will spring bring? As this is written, the March flooding forecast from the National Weather Service for the upper Red River Valley shows a greater than 75 percent likelihood of minor flooding. Elsewhere, the Minnesota and St. Croix Rivers are predicted to have less than a 50 percent chance of flooding, while the Mississippi River may have minor flooding in the Little Falls area. Visit the National Weather Service website for more at http://water.weather.gov/ahps2/long_range.php?wfo=fgf&percent=50.

Employers in affected areas are advised to plan ahead and consider direct impact (property protection, business continuity, etc.) and indirect impacts (employee absences, delayed production, delayed shipments to and from, etc.). Further information and numerous links are available on the Department of Labor and Industry (DLI) website at www.dli.mn.gov/Flood.asp.

As part of any flood-related executive order by the governor and the state's emergency operations plan, staff members at DLI may assist in flood-related response and recovery. Members of the department's Construction Codes and Licensing Division would be asked to assess property damage to any state-owned property (in locales that are not delegated to local building officials) and would assist any locale requesting aid.

www.dli.mn.gov/Flood.asp



'Aware' of AWAIR? Learn more in program booklet, new video

Minnesota OSHA requires employers in certain industries to develop and use a written, comprehensive workplace safety and health program, an A Workplace Accident and Injury Reduction (AWAIR) program.



In a nutshell, the program must:

- describe how the program will be implemented and supported by managers, supervisors and employees;
- how hazards will be identified and controlled;
- how the plan will be communicated to all affected employees;
- how workplace accidents and incidents will be investigated, with any necessary corrective action taken; and
- how safe work practices and rules will be enforced.

Each year, employers must also conduct and document a program review and how procedures are being met.

Learn more

Complete information, a short video and the booklet *An employer's guide to developing A Workplace Accident and Injury Reduction (AWAIR) program* (available in English and Spanish) are at www.dli.mn.gov/OSHA/Awair.asp.

Agency experts available for speaking engagements

Department of Labor and Industry (DLI) staff members regularly speak to community, industry and school groups about issues that affect employees, employers and other DLI stakeholders.

As part of its outreach efforts to stakeholders, DLI's speakers bureau can provide interested parties with a knowledgeable speaker in an array of topics.

- Apprenticeship programs and opportunities
- Construction codes and licensing
- Occupational safety and health topics or free consultation assistance
- Wage and hour requirements
- Workers' compensation coverage, reporting and claims issues
- Workers' compensation dispute resolution
- Workers' compensation ombudsman services.

For more details or to place a request for a speaker, visit www.dli.mn.gov/Speakers.asp.

MNOSHA staff members brush up on defensive driving skills

Eighty-five Minnesota OSHA Compliance and MNOSHA Workplace Safety Consultation staff members recently participated in the National Safety Council's "Defensive Driving 4-hour Course." The course was offered to the staff in Duluth on Feb. 18 and in St. Paul on Feb. 19 and 20 by instructors affiliated with the Minnesota Safety Council.

Driving is a crucial skill for Minnesota OSHA field staff members. Periodic defensive driving training helps keep the employees safe on and off the job.



MNOSHA Compliance signs safety, health partnerships

Minnesota OSHA (MNOSHA) Compliance recently signed Level 3 Cooperative Compliance Partnership agreements with Graham Construction Services and with Carl Bolander & Sons.

Level 3 is the peak level of MNOSHA partnerships, with applicants striving to be an industry leader with very comprehensive safety and health programs. To qualify, participants must have reached Level 2 and remained there for at least one year.

The partnership agreements were made through MNOSHA's safety initiative with Associated General Contractors (AGC) of Minnesota, known as Construction Health and Safety Excellence (CHASE) Minnesota.

The Graham Construction Services project is the University of Minnesota's Kolthoff Hall Bike/Walkway Project in Minneapolis, scheduled for completion in September 2014.

The Carl Bolander & Sons project is Ramsey County's Twin City Army Ammunition Plant Remediation Project, scheduled for completion in May 2014.

The partnerships acknowledge the importance of providing a safe, healthful work environment in construction and seek 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 MNOSHA Compliance partnerships at www.dli.mn.gov/OSHA/Partnerships.asp.



Graham Construction Services



Carl Bolander & Sons

Using swimming pool chemicals safely

Initiative

Within the past few years, Minnesota OSHA (MNOSHA) Compliance has investigated several incidents involving the improper mixing of swimming pool chemicals. This document is intended to build public awareness of this hazard to prevent injury to maintenance staff members who handle water treatment chemicals.

Description of the hazard

Chlorinated compounds, including sodium hypochlorite, calcium hypochlorite and chlorinated isocyanurates, are commonly used to disinfect water in swimming pools. They also react with a wide variety of chemicals, including acids and ammonia-containing compounds. Some can break down and decompose over time, producing chlorine and other gases.

Hydrochloric acid, also known as muriatic acid, is another commonly used pool chemical. In three out of four incidents investigated by MNOSHA Compliance from 2011 through 2013, sodium hypochlorite bleach was accidentally mixed with hydrochloric acid, producing chlorine gas. Cleaning chemicals containing ammonia or quaternary ammonium compounds can also react with pool chemicals to produce toxic gases known as chloramines. These compounds can cause respiratory tract irritation and, in extreme cases, pulmonary edema and death.

Improper mixing of pool chemicals can also generate heat, creating a fire hazard as well.

Controlling and eliminating the hazard

Store chlorinated compounds away from acids and other chemicals. Use separate rooms or barriers if possible; if not, then place them as far away from each other as possible. Pool chemicals must be kept dry until use because they can react violently with small amounts of water and release harmful gases and excessive heat. Separate tools and containers should be used to measure and apply chlorinated compounds.

Containers must be properly labeled at all times. Employees should double-check labels when storing pool chemicals and before use to avoid misidentification. They must also be trained about the hazards and proper use of these materials in addition to their regular Employee Right-To-Know training. Proper personal protective equipment, including gloves, goggles and face shields, should be used when handling these substances.

Finally, employers must develop a spill and emergency response plan and ensure their employees know what to do, including when to evacuate and who to call after they are safely away from the area.

For more information

The U.S. Environmental Protection Agency has issued a seven-page Chemical Safety Alert about the proper storage and handling of pool chemicals – www.epa.gov/oem/docs/chem/spalert.pdf.

Public swimming pools are regulated by the Minnesota Department of Health under Minnesota Rules 4717.0150 through 4717.3975. Learn more at www.health.state.mn.us/divs/eh/pools.

OSHA answers

frequently asked questions

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

Q. Does Minnesota OSHA require safety latches on hoists?

A. Under Minnesota Rules 5205.1210 Hoist Hook Safety Devices, all hoists and cranes in general industry that lift or travel with loads attached are required to have safety latches – sometimes called mousings – attached to the hoist hooks. This includes both the hook carrying the load and the hook that attaches the hoist to the rail, trolley or structure. Wire or rope wrapped around the hook instead of a latch, which is sometimes also referred to as mousing, is prohibited.



A hoist without a safety latch.

Q. What's the latest about the switch to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)?

A. All employers were to have their employees trained about the new labeling system and safety data sheets by Dec. 1, 2013. Any employers that have not done so must provide this training as soon as possible.

On Dec. 27, 2013, federal OSHA issued a memo about the classification of combustible dusts under the revised HAZCOM standard. The memo provides OSHA investigators and “classifiers” with guidance about whether a material should be considered a combustible dust. (“Classifiers” are manufacturers and importers.) Classification methods include:

- prior history of the material being involved in a dust fire or explosion;
- laboratory testing;
- published test results; or
- dust particle size.

When determining whether a material is combustible dust, the manufacturer or importer must consider the material not only as shipped, but also as “expected in normal conditions of use or foreseeable emergencies.”

Federal OSHA has published a list of combustible materials, in poster format; it is available online at www.osha.gov/Publications/combustibledustposter.pdf.

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.

Department helps people improve their OSHA recordkeeping skills

By Brian Zaidman, Research and Statistics

The ability to maintain an accurate OSHA log of recordable work-related injuries and illnesses is an important skill that benefits employers, workers, safety professionals and government agencies. Recording the correct cases and accurately including the required information leads to higher quality injury and illness rates that enable employers to better understand their relation to the benchmark rates and help government agencies to properly direct resources.



The Department of Labor and Industry provided OSHA log recordkeeping skills training to 100 employer representatives during two sessions, Jan. 29 and March 7. The recordkeeping workshops presented information available in the Recordkeeping 101 and 201 series available on the Minnesota OSHA Compliance recordkeeping page at www.dli.mn.gov/OSHA/Recordkeeping.asp. Brian Zaidman, Research and Statistics, and Breca Tschida, Workplace Safety Consultation, led the workshops and, together with their colleagues, answered dozens of questions from the participants.

Due to the great response to these workshops, the Department of Labor and Industry will schedule two sessions for people new to OSHA recordkeeping later this year; the dates and information about registration will be posted soon at www.dli.mn.gov/OSHA/Recordkeeping.asp.

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Stop by, say hello to MNOSHA

For the 80th year, the Minnesota Safety Council is sponsoring its annual Minnesota Safety and Health Conference. Once again, Minnesota OSHA (MNOSHA) Compliance and MNOSHA Workplace Safety Consultation will be there to help you with creating safer workplaces.



Come visit us at booths 433 (Compliance) and 607 (Workplace Safety Consultation) during the event, May 6 and 7, at the Minneapolis Convention Center.

Several conference sessions will be led by MNOSHA staff members as well, including:

- Health care construction: An orientation to contractor safety;
- OSHA inspection update;
- OSHA's proposed changes to the silica standard; and
- What you need to know about cranes and rigging.

Visit www.minnesotasafetycouncil.org/conf/14index.cfm for complete conference information.

Slips, trips and falls resulted in 5,200 cases with at least one day away from work in Minnesota during 2012, 25 percent of all day-away-from-work cases. This injury event category is divided into four main parts: slips or trips without falls; falls on the same level; falls to a lower level; and jumps. Very few injuries were the result of jumps, so they will not be discussed here. Each of the remaining three categories has a very different profile of workers and injuries.

As shown in the accompanying table, the majority of the cases were due to falls on the same level, when someone's position abruptly changes from vertical to horizontal, landing on the same general level that supported the worker. The table shows the distribution of characteristics within each event type.

The majority of workers whose injuries were caused by a slip or trip, without a fall, or who fell to a lower level were male, while the majority of workers suffering from a fall on the same level were female. The most common occupations for workers falling to a lower level were construction and extraction occupations, while service occupations were the most common for the other two event categories. Falls to a lower level accounted for 11 percent of all construction and extraction worker cases with at least one day away from work.

Injury severity increased from a median of seven days away from work for workers with a slip or trip to 10 days for a fall to the same level and to 11 days for a fall to a lower level. Thirty percent of the injuries resulting from a fall to a lower level resulted in more than 30 days away from work, while the other two categories had about 20 percent of cases away for that long a period. Along with this increase in days away from work, the percentage of cases with fractures showed corresponding increases.

Selected estimates of worker and injury characteristics for occupational injuries resulting from types of slips, trips and falls, cases with one or more days away from work, Minnesota, 2012			
	Slip or trip, without fall	Falls on same level	Falls to lower level
Number of cases	850	3,530	770
Median days away from work	7	10	11
<i>Percentage of cases within each event type</i>			
Gender			
• Male	62%	37%	68%
• Female	36%	63%	32%
Occupation			
• Service	25%	28%	14%
• Construction and extraction	9%	2%	18%
• Installation, maintenance and repair	12%	3%	16%
• Production	18%	10%	9%
• Transportation and material moving	12%	12%	17%
Nature of injury or illness			
• Fractures	2%	19%	26%
• Sprains, strains, tears	74%	24%	22%
• Multiple traumatic injuries	–	12%	13%
• Soreness, pain	18%	20%	14%
Dash indicates data is not available.			
Source: Survey of Occupational Injuries and Illnesses, 2012, Bureau of Labor Statistics.			

Workplace safety for temporary workers: Who is responsible?

By Dave Ferkul, MNOSHA Workplace Safety Consultation

Serious and sometimes deadly incidents involving temporary-agency workers has initiated added focus about workplace safety and whether temporary workers receive the same protections as full-time workers. See, for example, *Temporary Work, Lasting Harm*, by ProPublica, an independent, nonprofit newsroom, www.propublica.org/article/temporary-work-lasting-harm.

Under Occupational Safety and Health Administration (OSHA) law, all workers have the right to a safe and healthful workplace. Due to increasing size of the temporary workforce and increased injury rates within this group, OSHA has launched an initiative to better ensure temporary workers are protected, through increased enforcement, outreach and training. Federal and state OSHA programs across the country are expected to assess whether employers that use temporary workers are meeting their responsibilities with compliance. Such efforts will include assessment of whether required training has been received and provided in a language and manner that is understandable. OSHA activities that involve temporary workers will be tracked as part of this initiative, to further understand the magnitude of the issue. For more about this initiative, see www.osha.gov/temp_workers.



Temporary workers are at increased risk of workplace injury:

- They are new to a jobsite, sometimes multiple times in a year, and workers new to a worksite are statistically at a higher risk of injury.
- Employers may not take the time to adequately train and orient a temporary worker. The employer may think that with the worker around for only a short time, devoting the necessary resources to fully train and orient the worker would be wasted.

To help reverse the trend of workplace safety inequities, employment agencies and host employers must realize the shared responsibility involved in managing the safety and health of these workers. There must be sufficient communication between the agency and the host employer to understand the nature of the work operations and potential safety and health issues so they can be discussed with workers prior to sending the worker to the worksite. Before a temporary worker is assigned, the following should be assessed:

- the type of work operation;
- a description of assigned work task(s);
- the machinery, equipment and tools that will be operated or used;
- any other machinery, equipment or tools the worker would be in proximity to;
- any direct handling of or exposure to chemicals or hazardous substances;

Site-specific safety and health information is to be the host employer's responsibility; the agency is responsible for general review of applicable safety and health information.

- what, if any, personal protection equipment (PPE) will be required; and
- whether the employer will provide new-employee orientation and, if so, what will be covered.

The host employer and employment agency need to work together to ensure assigned workers are given adequate training and orientation of the worksite and job tasks. Site-specific safety and health information is the host employer's responsibility; the agency is responsible for general review of applicable safety and health information.

The employment agency should have a reasonable basis for believing the host employer meets its training responsibilities to address potential hazards of the worksite to which a temporary worker may be exposed. Obtaining proof of training, such as written records and a summary of the information that was covered, is one way.

Employment agencies are not expected to become experts in safety. They are expected to determine the conditions that exist at a worksite, what hazards may be encountered and how workers can be protected from these hazards. This can be accomplished by:

- visiting the worksite;
- discussing pertinent worksite safety and existing safeguards with the host employer; and
- reviewing recordable occupational injuries and illnesses at the site.

The contract between the host employer and the employment agency should define the scope of the work that will be performed. This will discourage employers from assigning work to unqualified and untrained workers. It will also clarify each entity's role in protecting temporary workers. Safety and health responsibilities should also be established in the contract to ensure compliance with regulatory requirements is achieved and adequate protective measures are provided.

Communication between the employment agency, temporary worker and host employer is critical to ensuring injury or illness incidents are reported and investigated, and corrective action is taken. Workers should know they are free to alert the employment agency if work is performed outside the scope of their assigned duties, so concerns can be quickly communicated to the host employer. The host employer and the employment agency should each have a safety and health program that identifies and controls hazards.

Mandated safety and health programs

There is shared responsibility for reviewing applicable safety and health program information and requirements. Typically, site-specific information is the host employer's responsibility. The employment agency provides general, overview information. There should be an agreement about the extent of information that will be provided by each entity.



Workers should know they are free to alert the employment agency if work is performed outside the scope of their assigned duties, so concerns can be quickly communicated.

Examples

Minnesota Employee Right-to-Know (ERTK) standard: To comply with the ERTK standard, employers must identify the hazardous substances, harmful physical agents and infectious agents that are present in the workplace and provide information and training to employees who are “routinely exposed” to those substances or agents. At a minimum, the employment agency should review the requirements of the rule. The host employer must review the potential health hazards, signs and symptoms of exposure, and methods to prevent exposure, as required by the ERTK regulation.

Control of hazardous energy or lockout/tagout standards: In various scenarios, employers are required to de-energize and lock out powered machinery or equipment before employees maintain, clean, adjust or service such machinery or equipment. The employment agency should review the regulations and convey to the temporary workers that they must not enter hazardous areas within machinery or other equipment unless the machine is de-energized and locked-out. The agency could clarify locks and tags are used to secure hazardous energy sources and that machine-specific procedures will be followed to properly de-energize and control hazardous energy that could affect workers.

Hearing conservation: If the work area is a high-noise environment, the agency should inform workers that employees will be required to wear hearing protection. The agency should verify the host employer has taken precautions to prevent excessive noise exposure – at a minimum, through training and use of appropriate hearing protection. The host employer should review with the employee the types of hearing protection available, how to properly use each type and the conditions of use. Depending on the length of employment, baseline and annual audiograms may be required.

Emergency action plan: The host employer should review emergency action plan information with temporary workers or provide the information to the employment agency for review. The host employer should cover any additional site-specific information.

Operating a forklift or other industrial truck: Workers, including temporary workers, cannot operate these types of equipment unless they have been properly trained. The host employer will typically provide training relating to the specific industrial truck(s) provided.

Walking/working surfaces and fall protection: When working at heights greater than 4 feet above the adjacent floor or working above dangerous machinery, host employers must provide fall protection in the form of standard guard rails, a personal fall-arrest system or fall restraints. For construction, working at heights greater than 6 feet requires fall protection.

Machine guarding: Host employers are responsible to ensure machines are adequately safeguarded to prevent access to points-of-operation and other areas that can cause injury. Equipment must be maintained in a condition that allows for its safe, effective use and must be used in the manner intended.



The agency should verify the host employer has taken precautions to prevent excessive noise exposure – at a minimum, through training and use of hearing protection.

Personal protective equipment: Where applicable, the host employer will provide specific training on PPE use and other equipment and machinery operation. The temporary agency can provide general information about the PPE requirements, type of work performed and machinery that will be operated.

As summarized above, it is recommended that a standard process for preparing workers be established and followed. The goal is to prevent injury and illness occurrences that could have been avoided. With some planning and an understanding of the worksite and work activities, significant steps can be achieved in protecting temporary workers on the job.

Injury and illness recordkeeping

The responsibility of recording injuries and illnesses is based on who supervises the day-to-day work activities of the temporary worker. If the host employer has full supervisory control of the temporary worker, then that employer is responsible for recording workplace accidents, and vice versa. Day-to-day supervision occurs when, in addition to specifying the output, product or result to be accomplished by the person's work, the employer supervises the details, means, methods and processes by which the work is to be accomplished. Prompt, accurate reporting and recording of workplace injuries and illnesses are necessary to initiate thorough investigation and appropriate actions so incidents can be prevented from recurring.

Promoting safety and health to young workers

By Dave Ferkul, MNOSHA Workplace Safety Consultation

Young workers are some of the most vulnerable to workplace injuries and illnesses. The Minnesota Department of Labor and Industry (DLI) encourages employers to promote workplace safety and health, as well as worker rights and responsibilities, to teens entering or returning to the workforce this summer. With the right training and precautions, teens can have a safe and rewarding work experience.

Common hazards for young workers

- Falls (slip, trip, fall) due to slippery floors and working at heights
- Caught in machine
- Contact with live electrical
- Burns, fire
- Motor-vehicle and equipment operation (food delivery, grocery)
- Heavy lifting
- Workplace violence (retail – convenience store, fast-food restaurant)
- Exposure to hazardous chemicals (janitorial/clean-up, agriculture)
- Heat exposure (outdoor work, industry)
- Noise



Common injury causes for young workers

- Lack of adequate equipment, inadequate or lack of personal protective equipment, or insufficient machine guarding
- Unfamiliarity with work requirements and safe operating procedures
- No established policies that consider worker safety
- Lack of adequate training about policies and about proper use of equipment
- No accountability to ensure appropriate procedures are established and followed

Labor laws for teen workers – www.dli.mn.gov/LS/TeenWorkers.asp

A minor younger than 16 years old may not:

- work before 7 a.m. and after 9 p.m.; nor
- work for more than 40 hours a week or more than eight hours in a 24-hour period.

A minor younger than 16 years old is prohibited from:

- operating machinery, power-driven mowers or garden equipment, drill presses, grinders, lathes, portable power-driven tools, meat slicers, vehicle lifting apparatuses in service stations, welding, patient handling in hospitals and nursing homes; and
- doing agricultural tasks declared by the U.S. Secretary of Labor to be particularly hazardous

Children younger than 16 years old *can* be hired to complete common household chores such as lawn mowing. Private companies cannot hire children younger than 16 years old to mow lawns on or around company grounds.

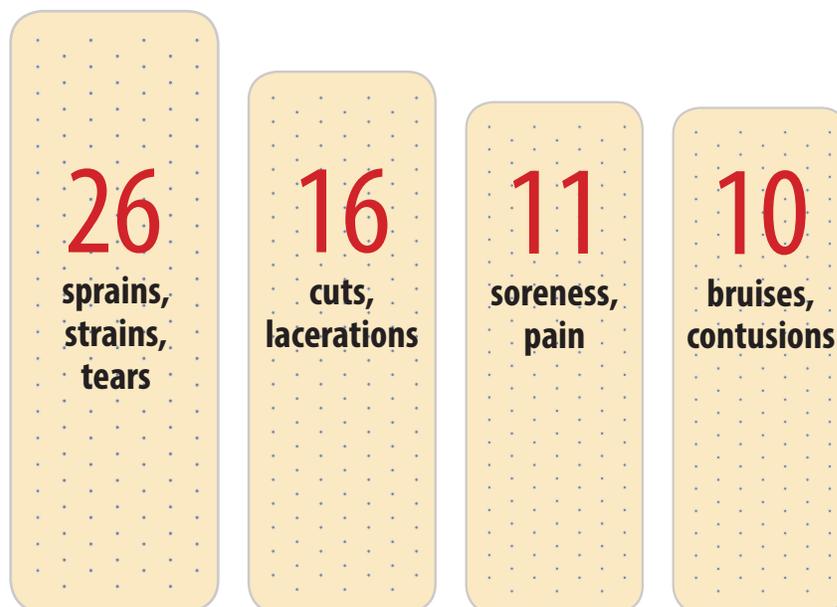
A minor 16 to 17 years old may not work:

- after 11 p.m. on evenings before school days or before 5 a.m. (written parental permission can extend by one half-hour the start and end times for work).

A minor 16 to 17 years old is prohibited from:

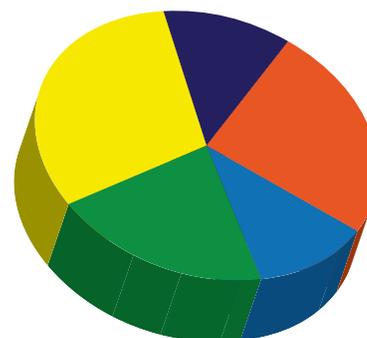
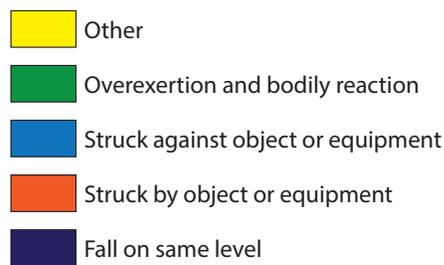
- working where chemicals or other substances are present in hazardous quantities;
- operating power-driven machinery, including a forklift, meat saw, grinders, milling machines, press brake and woodworking machinery;
- operating a tractor of more than 20 power-take-off (PTO) horsepower or connecting or disconnecting implements or parts to the tractor; and
- handling or applying agricultural chemicals with toxicity category I (label has “Danger” or “Poison” with a skull and crossbones on it) or toxicity category II (label has “Warning” on it).

Nature of illness or injury by percentage



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

Event or exposure



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

If you have questions about labor laws, contact Labor Standards at (651) 284-5070, 1-800-342-5354 or dli.laborstandards@state.mn.us.

Minnesota OSHA safety and health standards – www.dli.mn.gov/MnOsha.asp

Rights and duties of employees of all ages:

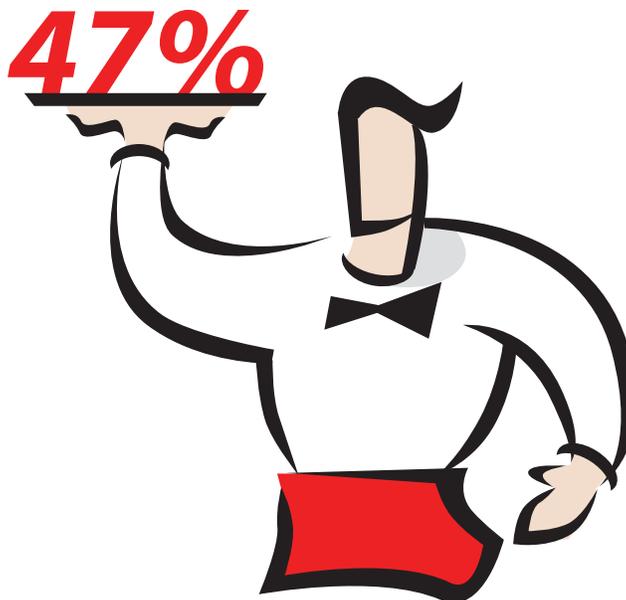
- you must comply with MNOSHA standards;
- you have the right to request a safety or health inspection; and
- you have the right to refuse to work under conditions you believe present an immediate danger of serious physical harm or death.

If you have questions about workplace safety or health, contact Minnesota OSHA Workplace Safety Consultation at (651) 284-5060, 1-800-657-3776 or osha.consultation@state.mn.us.

Workplace heat hazards

Heat stress results from a combination of internal (body) heat production and external heat exposure from the environment and can occur year-round in foundries, kitchens or laundries, or only a few days during the summer in almost any work setting. High temperature, humidity, radiant heat, minimal air movement and clothing contribute to heat stress. It affects the body’s cooling mechanism to effectively dissipate heat via blood brought to skin and perspiration. The process of adjusting to a hot environment – heat acclimatization – takes about 10 days. Body temperature, pulse rate and general discomfort are most noticeable during the first days, so avoid excessive physical exertion during the initial days of working in hot conditions.

Percent of injured workers, service occupations



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

Prevention requires routine fluid intake, rest in a cool area and acclimatization, particularly as temperatures approach 85 to 95°F and relative humidity exceeds 70 percent. As a general rule, rest every two hours for light-work activities (reduce the time when temperatures reach or exceed 95°F and there is high relative humidity of 70 percent or more).

For more, view a PowerPoint presentation at www.dli.mn.gov/WSC/PDF/heatstress_pptpresen.pdf.

Heat stress can result in several illnesses – from the more minor transient heat fatigue to the medical emergency of heat stroke.

Heat cramps – dehydration is a factor; may be due to loss of salt from sweating

- Symptoms: painful muscle spasms (legs, arms, abdomen)
- Treatment: rest, drink water and eat salty foods
- Prevention: ensure adequate water intake and adequate salt at meals; no need for salt tablets, diluted sports drinks provide adequate amount of salts

Heat exhaustion – dehydration that causes blood volume to decrease excessively

- Symptoms: fatigue, weakness, dizziness, faintness, nausea, headache, moist-clammy skin, pale or flushed appearance, rapid pulse, normal to slightly elevated temperature
- Treatment: move victim to a cool area, have them rest and drink fluids
- Prevention: acclimatization, drink water, rest breaks in cool area

Heat stroke – partial to complete failure of the body to regulate heat (can't sweat)

- Symptoms: hot, dry skin; red, mottled or bluish skin; confusion or loss of consciousness; convulsions; rapid pulse; and elevated temperature
- Treatment: a life-threatening situation requiring immediate action; call emergency medical assistance; cool the victim by moving him or her to a shaded area; soak clothing and skin with cool water; and fan to initiate evaporation
- Prevention: acclimatization, drinking plenty of water and taking rest breaks in a cool area

Other common workplace hazards for teen workers

Fainting – blood volume decrease, pooling of blood in vessels of the skin and lower body

- Symptoms: dizziness/light-headedness (symptoms of heat stress may precede fainting)
- Treatment: move victim to cool area, have them rest and drink fluids
- Prevention: moving around versus standing still can reduce the possibility

Overexertion – a major cause of inflammation of joints and ligaments from excessive physical effort

- Prevention: pay attention to how objects are lifted, use legs not waist/back; be sure to have a firm footing, with feet square with shoulders; don't twist, turn feet toward object to be lifted; and avoid lifting more than 35 pounds, if you need to get assistance

Tick-borne disease – such as Lyme disease, anaplasmosis

- Prevention: inspect for ticks and symptoms of tick bites routinely

Exposure – working with tools or in areas where personal protective equipment is needed

- Prevention: sturdy footwear; work gloves; sunscreen; light-colored cotton shirts with sleeves; cap; hearing protection when high noise source is present; and respiratory protection in dusty environments (N95 disposable particulate respirator)

Agricultural machinery – do not operate without proper training

- Prevention: proper training; maintain all safeguards; do not attempt to unjam equipment while it is running; and know where electrical power lines are located

Chemicals (pesticides) – hazardous and toxic substances

- Prevention: after exposure to chemicals, wash your hands before eating or drinking anything; avoid direct contact; and keep work and street clothes separate

References and more information

- Hazard alerts: Grain bins – www.dli.mn.gov/OSHA/HazardAlerts.asp
- Teen workers – www.dli.mn.gov/LS/TeenWorkers.asp
- Youth rules for kids at work – www.dli.mn.gov/LS/PDF/youthrules.pdf
- Restaurant Safety for Young Workers – www.osha.gov/SLTC/restaurant
- Youth in Agriculture – www.osha.gov/SLTC/youth/agriculture
- Young Workers You Have Rights! – www.osha.gov/youngworkers

MNOSHA identifies standards cited most often in 2013

After each federal-fiscal-year (October through September), Minnesota OSHA Compliance identifies which standards it cited most frequently. Three fact sheets, identifying citations in the construction industry, in general industry and combined, are generated and published online at www.dli.mn.gov/OSHA/FactSheets.asp.

Minnesota OSHA Compliance's most frequently cited standards, federal-fiscal-year 2013		
Standard	Description	Frequency
Minnesota Rules 5206.0700	Employee right-to-know training	578
1926.501	Fall protection in construction	438
Minnesota Statutes 182.653, subd. 8	A Workplace Accident and Injury Reduction (AWAIR) program	307
1910.305	Electrical wiring methods, components and equipment in general industry	255
1910.147	The control of hazardous energy (lockout/tagout)	218
1910.212	Machinery and machine guarding – general requirements	197
1910.134	Respiratory protection	175
1910.178	Powered industrial trucks	157
1910.23	Guarding floor and wall openings and holes in general industry	145
1910.151	Emergency eyewash and showers	130

Minnesota's newest MNSHARP Construction worksite

Adolfson & Peterson Construction's Folkestone Project in Wayzata, Minn., was recently recognized by the Department of Labor and Industry as a Minnesota Safety and Health Achievement Recognition Program (MNSHARP) Construction worksite.

MNSHARP Construction is a Minnesota Occupational Safety and Health Administration 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. Learn more at www.dli.mn.gov/WSC/MnsharpConstruction.asp.



Adolfson & Peterson Construction

Free Construction Seminars cover important topics, start discussions

Up next – Fall Protection, May 20 • New 2014/2015 dates announced

Fall Protection

Falls in the construction industry account for a majority of fatalities and serious injuries. It doesn't matter where, how or from what height, falls are always a serious safety concern.

Join Minnesota OSHA Compliance for its final free Construction Seminar of the 2013/2014 season, "Fall Protection – Ladders, Scaffolds, Residential, Commercial," on Tuesday, May 20. Attend the seminar to understand the compliance requirements, hear what panel members think needs to be done to prevent construction employees from falling and learn – from those in the construction industry – how they are preventing falls at their worksites.

The seminars are at the MnDOT Training and Conference Center, 1900 W. Cty. Road I, Shoreview, MN. Ample free parking is available. Doors open at 6:30 a.m. and the program begins at 7 a.m., lasting about two hours.

Visit www.dli.mn.gov/OSHA/ConstructionSeminars.asp for more information, to register or to be added to the email list.

2014/2015 Construction Seminar dates

Mark your calendars now, so you don't miss out on this free, informative, informal way to learn more about safety and health in the construction industry. The 2014/2015 seminar dates are Sept. 16, Nov. 18, Jan. 13, March 17 and May 19.



Stephanie Taylor, MNOSHA Compliance, addresses participants at the March 18 Construction Seminar about excavations. Additional panelists included Jeff Murray, Office of Pipeline Safety Division, Minnesota Department of Public Safety, and Blake Pfaffendorf, Bolander and Sons Co.

Minnesota's newest **MNSTAR** worksite

NuStar Energy's three terminals, in Moorhead, Roseville and Sauk Centre, Minn., were recognized by the Minnesota Department of Labor and Industry, on April 3, for their achievement as Minnesota Star (MNSTAR) worksites.

There are currently 35 MNSTAR worksites in Minnesota. For more information about the program visit www.dli.mn.gov/WSC/Mnstar.asp; for information about NuStar's achievement as MNSTAR worksites, visit www.dli.mn.gov/NuStar.asp.



NuStar Energy – Moorhead, Roseville, Sauk Centre, Minn.
Photo by John F. Walsh, <http://hearthtonemn.zenfolio.com>