

Safety Lines

2016: Minnesota OSHA's year in review



By Shelly Techar, MNOSHA Management Analyst

In federal-fiscal-year (FFY) 2016, Minnesota OSHA (MNOSHA) Compliance:

- visited 1,979 establishments and identified 3,553 hazards;
- generated safety inspection results within 23 days on average;
- generated health inspection results within 27 days on average;
- resolved contested cases within 119 days on average;
- conducted 95 outreach presentations with an average participation level of 36 people; and
- responded to approximately 4,635 phone calls and 1,873 written requests for assistance, primarily email messages, with a majority of these inquiries answered within one day.

Of the 1,165 workplace safety and health complaints received, 291 (25 percent) resulted in an on-site inspection, with an average response time of 3.3 days. The remaining complaints were handled via MNOSHA's phone and fax system (nonformal complaints).

MNOSHA Compliance continues to provide a variety of safety and health information online, including printable handouts and information about its audio visual library, which offers a selection of safety and health videos and DVDs available for a free two-week loan. The MNOSHA pages also provide links to other websites where safety and health regulations and information can be accessed. The online information is updated regularly; visit www.dli.mn.gov/MnOsha.asp.

The MNOSHA Compliance annual report will be posted online during the second half of the calendar year at www.dli.mn.gov/OSHA/Reports.asp.

By Dave Ferkul, MNOSHA Workplace Safety Consultation Supervisor

In federal-fiscal-year (FFY) 2016, Minnesota OSHA (MNOSHA) Workplace Safety Consultation (WSC):

- completed 987 overall visits, including 748 initial (on-site consultation) visits, 146 formal training visits and 93 follow-up visits;
- helped employers identify more than 3,600 safety and health hazards through initial visits;
- completed 339 interventions – activities in addition to visits – including formal presentations, technical assistance and outreach;
- engaged more than 10,900 participants in various events (outreach, technical assistance, training) about ergonomics, chain saw and logging safety, workplace violence prevention and a range of construction and general industry safety and health topics.

MNOSHA WSC forms alliances and works to maximize resources by collaborating with organizations and employers to promote workplace safety and health. In FFY 2016, one new alliance was established and four alliances were renewed.

WSC, continues ...



WSC, continued ...

WSC promotes workplace safety and health by educating, training and supporting professional groups, networking groups, and labor and industry organizations.



The Minnesota Safety and Health Achievement Recognition Program (MNSHARP) and the Minnesota Star (MNSTAR) Program are safety and health recognition programs for general industry and construction industry worksites. Each program provides incentive and recognition to employer worksites that have achieved a higher level of safety and health excellence, recognized through reduced injury and illness rates and implementation of safety management attributes that comprise an effective management system. In FFY 2016, MNSHARP certified five new worksites, two general industry and three construction industry, and recertified 13 worksites. Forty-two worksites currently maintain

MNSHARP certification. In FFY 2016, the MNSTAR Program certified one new general industry worksite and recertified nine worksites. Forty worksites currently maintain MNSTAR Program status.

The MNOSHA Safety Grant Program awards up to \$10,000 for qualifying employers on projects designed to reduce the risk of injury and illness to their employees. During state-fiscal-year 2016, the program awarded \$1,027,443 to 149 applicants representing manufacturing, construction, health care, service, logging and public-sector employers.

Reminder: Carbon monoxide is a constant threat

Employees can be exposed to carbon monoxide (CO) year-round, but employers should pay extra attention during fall and winter months. Doors and windows that may have been opened during the summer are most likely shut tight now to keep in heat. Gas- or oil-fired furnaces and heaters, both at work and in the home, can pose a hazard if they are not firing or vented properly, leading to a build-up of CO in the air. However, more common sources of CO in the workplace are gasoline- or propane-powered forklifts.

One out-of-tune forklift can elevate airborne CO levels significantly, exposing employees to potentially hazardous levels. This is the reason Minnesota OSHA (MNOSHA) Compliance requires quarterly employee-exposure monitoring for CO whenever internal combustion engine powered industrial trucks (such as forklifts) are used in the general industry workplace. Specifically, Minnesota Rules 5205.0116 requires that employers using this equipment perform quarterly full-shift employee-exposure monitoring to assure employees are not exposed to CO above the permissible exposure limit (PEL) of 35 parts per million (ppm) as an eight-hour time-weighted average or the ceiling limit of 200 ppm over five minutes.



Construction employers must do similar monitoring whenever operating internal combustion powered equipment or using unvented space heaters indoors under Minnesota Rules 5207.0310. The PEL for construction is an eight-hour time-weighted average of 50 ppm.

For more information, see the MNOSHA carbon monoxide monitoring web page and fact sheet at www.dli.mn.gov/OSHA/CoMonitoring.asp.



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Occupational Safety and Health Division
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osha.compliance@state.mn.us

Fact sheet

Minnesota OSHA's most frequently cited standards for all industries Federal-fiscal-year 2016

Standard	Description	Frequency
1910.1200	Hazard communication	296
1926.501	Fall protection in construction	285
Minnesota Rules 5206.0700	Employee right-to-know training	276
Minnesota Statutes 182.653, subd. 8	A Workplace Accident and Injury Reduction (AWAIR) program	170
1910.212	Machinery and machine guarding – general requirements	154
1910.147	The control of hazardous energy (lockout/tagout)	150
1910.134	Respiratory protection	145
1910.305	Electrical wiring methods, components and equipment in general industry	92
1910.178	Powered industrial trucks	86
1926.451	General requirements for scaffolds	84

Created December 2016

**See all Minnesota OSHA fact sheets online at
www.dli.mn.gov/OSHA/FactSheets.asp.**

This material can be provided in different formats (Braille, large print or audio) by calling the MNOSHA Training/Outreach Office at (651) 284-5050 or toll-free at 1-877-470-6742.

HOW TO COMPLY WITH TWO OF MNOSHA'S MOST-CITED STANDARDS: *Powered industrial trucks; carbon monoxide monitoring*



By Diane Amell, MNOSHA Training Officer

Powered industrial trucks, also known as forklifts, are a common sight in general industry workplaces throughout the state and are often also used in the construction industry. Therefore, it is not surprising that two of the 10 most-cited standards in the past three years – 1910.178 Powered industrial trucks and Minnesota Rules 5205.0116 Carbon monoxide monitoring – apply to these large, powerful machines.

The most cited paragraph by far in the forklift standard is (I) Operator training. The standard requires industrial truck drivers to be trained, evaluated and certified prior to operating the equipment. At least one-third of the forklift citations issued were for operators who were not evaluated either initially or within the past three years about their ability to use the lift safely.

In the construction industry, the 1926.602 Material handling equipment standard requires operators to receive the same training and be evaluated in the same way as their counterparts in general industry.

The next most-cited subparagraph in the general industry standard is 1910.178(p)(1), which requires an industrial truck that is in “need of repair, defective or in any way unsafe” be removed from service until it is repaired and restored for safe operation.

Minnesota Rules 5205.0116, subp. 1, requires that whenever powered industrial trucks with internal combustion are used in the general industry workplace, the employer must perform quarterly environmental exposure monitoring for carbon monoxide to assure employee exposure stays at or below the permissible exposure limit. Subpart 2, which is cited far less frequently, sets limits on the amount of carbon monoxide in tailpipe exhaust after routine maintenance.

More information

Minnesota OSHA Compliance has two fact sheets that provide more information:

- OSHA forklift training requirements, at www.dli.mn.gov/OSHA/PDF/fact_forklift.pdf; and
- Carbon monoxide monitoring, at www.dli.mn.gov/OSHA/PDF/fact_c_o_monitoring.pdf.

New data being collected for occupational injuries, illnesses

By Brian Zaidman, Research and Statistics

The federal Bureau of Labor Statistics (BLS) is sending 5,000 Minnesota employers response packets for the 2016 Survey of Occupational Injuries and illnesses (SOII). In Minnesota, the SOII is conducted jointly by BLS and the Department of Labor and Industry (DLI). The employers participating in the 2016 survey were notified in December 2015 that their OSHA log data for 2016 will be submitted to calculate the incidence rates and case characteristics for the state and – together with employers across the country – for the nation. Employers' timely and accurate response to the survey will minimize costs and maximize the value of this vital workplace safety tool.

Notification letters were also sent to about 5,000 employers, explaining they have been selected to participate in the survey for 2017. The letter explains they need to keep an OSHA log for 2017, if they are not already required to keep one, and to report their results in 2018.

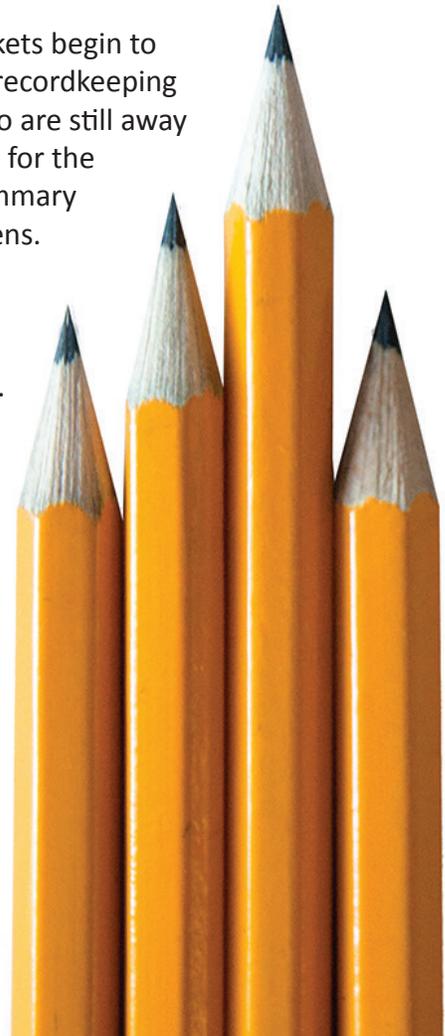
This is the initial year of a roll-out process to contact employers through email instead of postal mail. About eight percent of the 2016 survey reporting instructions and the 2017 survey notification letters are being sent by email. Employers will be given the option to participate in future surveys using email notification.

It is very important that employers that receive their 2016 survey packets begin to respond to the survey. The first task is to complete preliminary OSHA recordkeeping for the 2016 injuries and illnesses. Cases involving injured workers who are still away from work or on work restrictions will need to have estimates entered for the respective durations. Then the log totals are transferred to the log summary sheet and those totals are entered on the SOII internet response screens.

All participating employers are required to respond, even if they have no recordable injuries and illnesses during the survey year. For many industries, the majority of work establishments have no recordable cases.

Completing the survey takes very little time if the OSHA recordkeeping requirements have been followed. To learn more about how to complete the OSHA log or the log summary sheet, review Recordkeeping 101 and 201 at www.dli.mn.gov/OSHA/Recordkeeping.asp. More information about the survey is available online at www.dli.mn.gov/RS/SoiiIntro.asp.

The DLI survey team is part of the Research and Statistics unit and is barred by federal law from sharing the survey responses with OSHA. The DLI survey team can answer your questions about OSHA recordkeeping, the SOII and how to report the OSHA log information. Even if an employer is not participating in the survey, the DLI survey team can answer OSHA recordkeeping questions. The team can be reached at (651) 284-5428. Email questions about submitting the survey to BLS at icd.helpdesk@bls.gov.



State's fatal work-injuries increased in 2015

A total of 74 fatal work-injuries were recorded in Minnesota in 2015, an increase from 62 fatal work-injuries in 2014 and 69 fatal work-injuries in 2013. The 2015 total is above the average of 66 cases a year for 2010 through 2014. Minnesota's 2015 fatal injury rate is 2.7 fatalities per 100,000 full-time-equivalent workers; the 2014 rate was 2.3 fatalities per 100,000 full-time-equivalent workers. These and other workplace fatality statistics come from the annual Census of Fatal Occupational Injuries (CFOI), conducted by the Bureau of Labor Statistics, U.S. Department of Labor.

Nationally, there were 4,836 fatally injured workers in 2015, similar to the final 2014 count of 4,821 workers. The 2015 national rate is 3.4 fatalities per 100,000 full-time-equivalent workers, the same as the 2014 rate.

The CFOI also provided the following statistics for Minnesota's workplace fatalities during 2014.

Industries

- Agriculture, forestry, fishing and hunting recorded the highest number of worker fatalities, with 23 cases, an increase from 21 cases in 2014. The fatal injury rate in this industry sector is 16.9 fatalities per 100,000 full-time-equivalent workers.
- Construction had the second-highest number of fatalities, with nine cases, compared to seven cases in 2014. The fatal injury rate in this industry sector is 5.0 fatalities per 100,000 full-time-equivalent workers.
- Manufacturing and administrative and waste services each had seven fatally injured workers, the third-highest counts.

Types of incidents

- Transportation incidents accounted for 31 fatalities, the most for any incident type. Twelve of these fatalities occurred in the agriculture, forestry, fishing and hunting industry sector and four fatalities occurred in transportation and warehousing. There were 25 transportation incident fatalities in 2014 and 34 in 2013.
- Contact with objects and equipment was the second most frequent fatal work-injury event in 2015, with 17 fatalities. Most of these cases involved the worker being struck by an object or equipment. There were 14 fatalities caused by contact with objects and equipment in 2014.
- Thirteen of the fatalities were due to falls, with three in construction. There were nine fatalities due to falls in 2014.



- There were seven fatalities resulting from violence in 2015, compared to eight fatalities in 2014 and six fatalities in 2013.

Worker characteristics

- Men accounted for 60 of the 74 fatally injured workers in 2015. The 14 fatally injured female workers was the highest CFOI count in Minnesota since the inception of the program in 1992.
- Workers age 55 and older accounted for 36 fatalities, with 13 of these fatalities in the agriculture, forestry, fishing and hunting industry sector.
- Self-employed workers accounted for 34 fatalities, including 20 fatalities to workers in agriculture, forestry, fishing and hunting. There were 27 fatalities to self-employed workers in 2014.

Minnesota OSHA fatality investigations

Minnesota OSHA (MNOSHA) Compliance workplace fatality investigation statistics differ from CFOI. MNOSHA Compliance investigates all employee deaths under its jurisdiction that result from an accident or illness caused by or related to a workplace hazard. In federal-fiscal-year 2016, MNOSHA Compliance investigated 15 workplace fatalities. The CFOI numbers include Minnesota workplace fatalities caused by traffic accidents, airplane crashes, mining accidents, farm accidents and accidents to the self-employed, federal workers and railroad workers, none of which are covered by MNOSHA enforcement.

CFOI program

The CFOI, part of the Bureau of Labor Statistics' occupational safety and health statistics program, provides the most complete count of fatal work-injuries available. Workplace fatalities due to illnesses are not included.

The program uses diverse data sources to identify, verify and profile fatal work-injuries. Information about each workplace fatality (occupation and other worker characteristics, equipment being used and circumstances of the event) is obtained by cross-referencing source documents, such as death certificates, workers' compensation records, and reports to federal and state agencies. This method assures counts are as complete and accurate as possible. The Minnesota Department of Labor and Industry collects the information about Minnesota's workplace fatalities for the CFOI.

Minnesota 2015 CFOI tables are available www.dli.mn.gov/RS/StatFatal.asp. National data from the CFOI program is available at www.bls.gov/iif/oshcfoi1.htm.

Nominate a colleague for the Arthur E. McCauley Jr. Award

Minnesota OSHA (MNOSHA) is seeking nominations for the 2017 Arthur E. McCauley Jr. Award. The award is presented annually to a safety and health professional who embodies excellence and dedication in keeping Minnesota employees safe at work. It is named for McCauley, a former member of the Minnesota Safety Council known for his tireless efforts to make the state's workplaces safe. The award is presented at the Minnesota Safety Council's annual Safety Conference each May.

To nominate a colleague (active or retired), complete the nomination form online at www.dli.mn.gov/OSHA/MccauleyAward.asp.

Race and ethnicity estimates

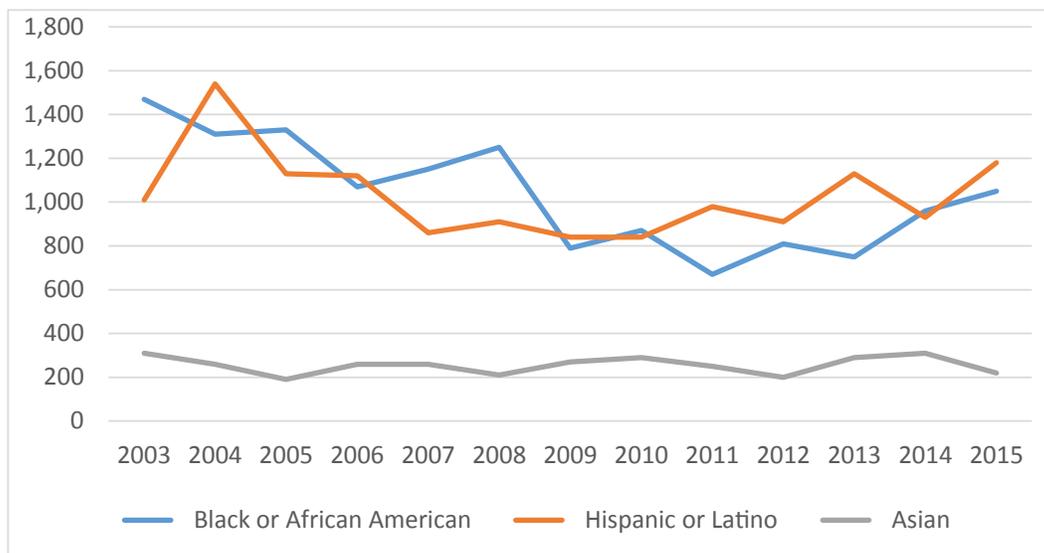
By Brian Zaidman, Research and Statistics

The Survey of Occupational Injuries and Illnesses (SOII) collects nonfatal injury and illness statistics from a representative sample of approximately 5,000 Minnesota business establishments each year. Reporting establishments include worker and injury characteristics for cases with one or more days away from work (DAFW) cases. The data collected in the survey is weighted to compute a statewide estimate. Race and ethnic origin are among the data fields collected, with the same coding system used in the Census of Fatal Occupational Injuries.

However, race and ethnicity information is not required on the survey form and about one-third of the reported cases are missing this information. While the SOII results provide estimates for the reported cases by race and ethnicity, incidence rates are not calculated due to the missing data. Therefore, the reported figures should be taken as the minimum number within each category. This is in addition to missing many possible cases due to underreporting.

Figure 1 shows the estimated number of reported cases in the three minority groups with the highest numbers of DAFW cases. The estimate numbers of white, non-Hispanic workers are in the 11,000 to 12,000 count during the past five years, and including them would make it difficult to see the trends among the minority groups.

Figure 1. Number of SOII days-away-from-work cases for workers reported in selected minority groups

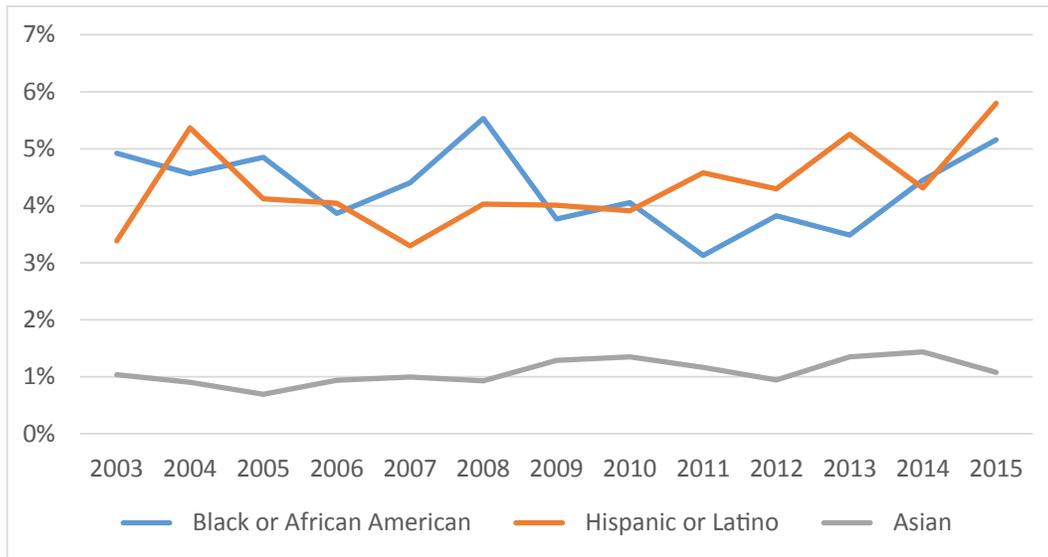


Note: The estimate numbers of white, non-Hispanic workers are in the 11,000 to 12,000 count during the past five years.

The annual SOII estimates show there are similar numbers of DAFW cases for Black or African American workers and Hispanic or Latino workers, at approximately 1,000 cases each in 2014 and 2015. The numbers of cases dropped during the recession, but leveled off and started increasing in 2010 for the Hispanic or Latino workers and in 2012 for the Black or African American workers. The most recent estimates are now approaching the estimates from before the recession. The number of DAFW cases for Asian workers has remained between 200 and 300 during this entire period.

These case count estimates can also be expressed as percentages. Figure 2 shows the percentages in relation to all DAFW cases, including cases that did not have race or ethnicity data reported. These percentages are the most conservative estimates of the proportion of minority workers among DAFW cases in Minnesota. They show that the percentages for Black or African American workers and for Hispanic or Latino workers have been between 3 percent and 6 percent since 2003. The percentage of white, non-Hispanic workers varied between a high of 63 percent and a low of 54 percent during this period.

Figure 2. Percentage of workers in selected minority groups among all SOII days-away-from-work cases [1]

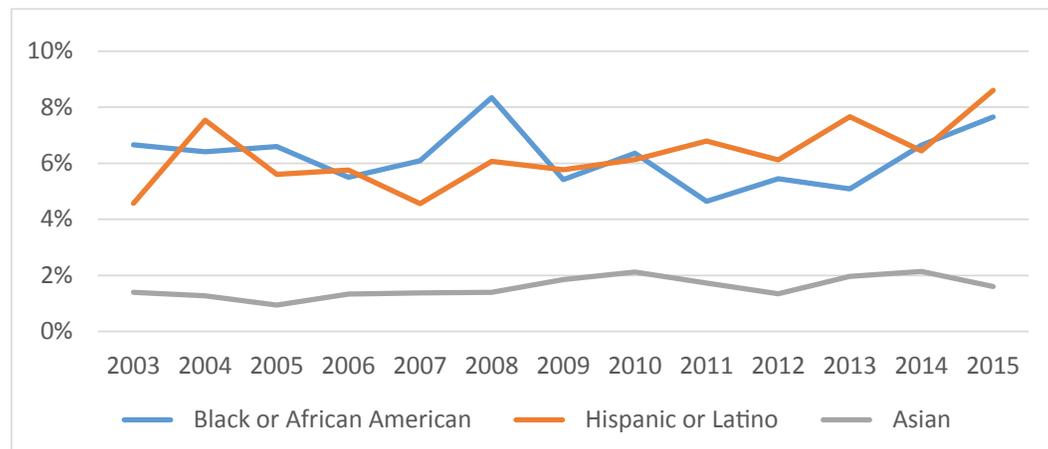


1. Percentage of all DAFW cases, including those with no reported race/ethnicity.

Note: The percentage of white, non-Hispanic workers varied between a high of 63 percent and a low of 54 percent during this period.

The percentage values are higher when only DAFW cases with reported race and ethnicity are used to compute the percentages (Figure 3); approaching 8 percent for the two largest groups and bringing the percentage of Asian cases to about 2 percent. White, non-Hispanic workers varied between a high of 86 percent and a low of 81 percent during this period.

Figure 3. Percentage of workers in selected minority groups among all SOII days-away-from-work cases with reported race or ethnicity



Note: White, non-Hispanic workers varied between a high of 86 percent and a low of 81 percent during this period.

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. We have a propane-fired forklift in our business. I know we have to do quarterly employee-exposure monitoring for carbon monoxide. Can we use a home carbon monoxide alarm for this?

A. No, residential carbon monoxide detectors are not intended to be used as survey instruments in workplace settings. Residential carbon monoxide detectors are built to comply with UL 2034 Standard for single and multiple station carbon monoxide alarms, which allows alarm points to be set at carbon monoxide concentration levels that would result in blood levels between 2.5 percent and 10 percent. The UL standard ensures the detectors alarm before potentially life-threatening levels of carbon monoxide occur. The alarms are designed *not* to sound when exposed to long-term, low-level carbon monoxide exposures or slightly higher short-term carbon monoxide exposures, such as those found in the workplace that employees are exposed to on a daily basis. Employees can be exposed to carbon monoxide at levels above OSHA limits without an alarm sounding.

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.

Current, past MNOSHA fatality investigations, serious-injury investigations summaries available online

Each month, Minnesota OSHA (MNOSHA) Compliance publishes current, updated summaries of its fatality investigations and serious-injury investigations.

For the federal-fiscal-year that began Oct. 1, 2016, MNOSHA Compliance has investigated five workplace fatalities and 21 serious injuries through Dec. 29.

The information provided about each investigation is:

- the inspection number, date of incident and worksite city;
- the type of business and number of employees;
- a description of the event; and
- the outcome of the MNOSHA Compliance investigation.

The summaries, plus other helpful workplace safety and health information from Minnesota OSHA, are available online at www.dli.mn.gov/OSHA/Information.asp.



Notes from the undercount, part nine:

Research illuminates why some injuries are not included in SOII

By Brian Zaidman, Research and Statistics

Notes from the undercount is a series presenting results and ideas from the Department of Labor and Industry's efforts to understand and reduce the undercount of cases in the annual Survey of Occupational Injuries and Illnesses. Minnesota's report about its undercount research, part of a broader U.S. Bureau of Labor Statistics research program, is available online at www.bls.gov/iif/mn_interviews.pdf.

Research conducted on the size and scope of the undercount of cases in the U.S. Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses (SOII) has revealed the need for additional training of OSHA log recordkeepers. The research has focused on recordkeeping in general and the recordkeeping inaccuracies reflect overall recordkeeping behavior and knowledge. Recently, researchers in Washington State conducted interviews with SOII respondents to discuss individual injuries omitted from the SOII and the reasons for the omissions.¹

The researchers matched Washington SOII data to workers' compensation indemnity claims data to identify establishments with unreported SOII days-away-from-work cases. Interviews with 103 SOII respondents from these establishments uncovered the reasons why 171 paid workers' compensation claims were not included. The reasons given for non-report on the SOII were then categorized.

1. Noncompliance with OSHA recordkeeping rules

a. Misunderstanding recordkeeping rules

Examples: The recordkeeper does not record injuries if the worker was kept on salary or used vacation leave; the worker returned to work when the physician recommended time away from work; the case was recorded as a work restriction because it had more days counted.

b. Injury information transfer or communication failure

Examples: Information from the workers' compensation claim did not reach the recordkeeper; the employer's policies suppressed reporting of injuries; the recordkeeper was waiting for the resolution of a workers' compensation dispute before recording on the log; the employer lost touch with the worker; the number of days away was not communicated to the recordkeeper.

2. Noncompliance with SOII reporting instructions

a. All sampled locations or workers were not included

Example: The recordkeeper did not include all of the requested company worksites in the SOII report.

b. OSHA logs were not kept or injuries were not tracked during survey year

c. All types of injuries were not included

Example: The recordkeeper did not think non-acute injuries were reportable.

3. Employer did not consider the injury work-related

4. Data entry errors

Examples: The wrong date of injury was recorded; the recordkeeper added the case to the previous year's log; the number of days away was left blank; the recordkeeper missed a case when completing the SOII; there was confusion from similar cases.

¹Rappin C, Wuellner S, Bonauto D, American Journal of Industrial Medicine, 59:343-356m 2016. This study is available on the BLS undercount research page at www.bls.gov/iif/undercount.htm.

MNOSHA Compliance signs safety, health partnerships



Marcus Construction – Dooley's Petroleum Inc.
Willmar, Minnesota



Marcus Construction – Farmers Union Industries
Redwood Falls, Minnesota



Vercon – Detroit Lakes Fairfield Inn and Suites
Detroit Lakes, Minnesota



M.A. Mortenson Company – Douglas County Hospital
Surgery Expansion, Alexandria, Minnesota

Minnesota OSHA (MNOSHA) Compliance recently signed Level 3 Cooperative Compliance Partnerships with three construction companies working on four different 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 partnership with **M.A. Mortenson Company** is under the Construction Health and Safety Excellence (CHASE) Minnesota partnership between MNOSHA Compliance and Associated General Contractors (AGC) of Minnesota members. CHASE Minnesota partnerships recognize those contractors 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.

To qualify for Level 3, participants must have reached Level 2 and remained there for at least one year.

The partnerships with **Marcus Construction** at two separate projects and **Vercon** at one project are under the partnership between MNOSHA Compliance and the Minnesota Chapter of Associated Builders and Contractors (MN ABC) members. The partnerships recognize those contractors 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.

To qualify for Level 3, participants must have reached Level 2 and remained there for at least one year.

Learn more about MNOSHA's partnerships at www.dli.mn.gov/OSHA/Partnerships.asp.

Minnesota OSHA's calendar of events

January 2017

Jan. 17 *Construction Seminar: Electrical safety*
www.dli.mn.gov/OSHA/ConstructionSeminars.asp

February 2017

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

Feb. 22 *Workplace violence prevention: How to prepare for an armed intruder*
www.dli.mn.gov/Wsc/Wvp.asp

March 2017

March 21 *Construction Seminar: Excavation training*
www.dli.mn.gov/OSHA/ConstructionSeminars.asp

March 22 *LogSafe training, Brainerd*
www.dli.mn.gov/Wsc/Logging.asp

March 23 *LogSafe training, Rochester*
www.dli.mn.gov/Wsc/Logging.asp

March 28 *LogSafe training, Cloquet*
www.dli.mn.gov/Wsc/Logging.asp

March 29 *LogSafe training, Grand Rapids*
www.dli.mn.gov/Wsc/Logging.asp

March 30 *LogSafe training, Two Harbors*
www.dli.mn.gov/Wsc/Logging.asp

March 31 *LogSafe training, Two Harbors*
www.dli.mn.gov/Wsc/Logging.asp