



Minnesota OSHA Compliance Construction Seminar

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- Update on compliance activities
- Introduction to AIHA's "Focus Four for Health"
- Introduction to AIHA's "Focus on Construction Health: COVID-19"
- Questions

MNOSHA Compliance activity

- Since the start of the pandemic, from March 1 to Dec. 31, 2020:
 - Received 18,118 emailed and phone inquiries (up 250% from previous year).
 - Complaints included 1,656 non-formal and 278 formal for a total of 1,934, almost 750 more from the previous year. One-hundred-fifty formal complaints were related to COVID-19.
 - Conducted 899 inspections, 185 related to COVID-19; issued 1,396 citations. Of these, 144 citations were issued on COVID-19 inspections, with 51 being violations of the General Duty Clause.
 - MNOSHA's Discrimination unit fielded 360 intakes, which resulted in 88 cases that are being pursued. Seventy-one cases have been designated as having a COVID-19 component.

MNOSHA Compliance activity

- From Oct. 1, 2019, to Sept. 30, 2020, MNOSHA conducted 110 outreach events with 9,900 participants (207% increase from previous year).
- Created various preparedness plans in conjunction with other state agencies.
- Created COVID-19 Health and Safety Guidelines for the Meatpacking Industry www.dli.mn.gov/sites/default/files/pdf/COVID_19_meatpacking_guidance.pdf
- MNOSHA consultants participated on a team to create and maintain the staysafe.mn.gov guidelines.

Health violations

Most common health violations in the past year:

- AWAIR
- Hazard communication
- Asbestos
- Silica
- Carbon monoxide

Minnesota OSHA's most frequently cited standards in the construction industry (NAICS codes 236000-238999), federal-fiscal-year 2020

Standard	Description	Frequency
1926.501	Fall protection	169
Minnesota Statutes 182.653, subd. 8	A Workplace Accident and Injury Reduction (AWAIR) program	66
1926.451	General requirements for scaffolds	63
1910.1200	Hazard communication	52
1926.1053	Ladders	51
Minnesota Rules 5207.1100	Elevating work platform equipment	42
1926.503	Fall protection training requirements	36
1926.651	Specific requirements for excavations	34
1926.405	Electrical wiring, components and equipment	26
1926.100	Head protection	26

Silica in construction



- All obligations commenced Sept. 23, 2017.
- Since October 2017, six construction employers have been cited for 1926.1153.

AIHA's 'Focus Four for Health'



HEALTHIER WORKPLACES | A HEALTHIER WORLD

Focus Four for Health

An Initiative to Address Four Major
Construction Health Hazards

Guidance Document



- New AIHA Construction Committee publication.
- Companion to existing Focus Four effort.
- Tool to raise the profile of health hazards in construction communities.
- Available at www.aiha.org/government-affairs/Pages/Position-Statements-and-Resources.aspx.

AIHA's 'Focus Four for Health'

- OSHA began, in 1994, to spotlight the top four fatality sources.
- This had a big impact on:
 - inspection targeting;
 - training (10- and 30-hour);
 - industry activities and partnerships; and
 - reduction in the fatality rate.

Existing Focus Four



**Focus Four – A successful
and familiar template**

INJURY FOCUS ONLY

AIHA's 'Focus Four for Health'

Safety is very important – and it now gets considerable attention on construction worksites.

- Awareness – good and getting better.
- Active site-safety programs.
- Robust guidance, training and regulation.
- Marketing messages – safety stand-down, excavation stand-down.
- Active enforcement profile – reinforces importance.

AIHA's 'Focus Four for Health'

Health often lags behind and gets inadequate attention on construction worksites.

- Lower awareness of health hazards.
- Fewer programs and activities.
- Fewer guidance and training materials.
- Regulatory gaps, including outdated standards and permissible exposure limites (PELs).
- Lower enforcement profile – perceived as having a lack of importance.

AIHA's 'Focus Four for Health'

- **The case for health:**

- more than half of construction workers reported they were regularly exposed to vapors, gas, dust or fumes at work two times a week or more – double the rate for all industries combined;
- construction and outdoor worker occupations were almost twice as likely as other workers to say there was something about their workplace they think may be harmful to their health;
- almost three-quarters of construction workers in a 2011 study were found to be exposed to noise levels above the NIOSH recommended exposure limits (RELs); and
- overall health risk for developing an occupationally related disease during a lifetime in a construction trade was two to six times greater than that for nonconstruction workers.

AIHA's 'Focus Four for Health'

The AIHA Construction Committee Project Team used the following criteria to select the Focus Four topics.

- The best available information and professional experience.
- The following impact criteria.
 - What is the severity of the health impact on construction workers?
 - How many construction workers are likely to be affected?
 - How many construction trades are affected?
 - What is the level of awareness about this hazard?
 - Are there solutions that employers can use to reduce exposures?

AIHA's 'Focus Four for Health'

- What is the hazard?
- How severe are the health effects and how common are they?
- What trades are most commonly affected?
- How to look at exposures and risks.
- What strategies can be used to control this hazard?
- Regulations and guidance.
- How can trade groups help?
- How can an industrial hygienist help?
- Takeaway messages.
- Additional resources.

AIHA's 'Focus Four for Health'

- Manual material handling
- Noise
- Air contaminants
- High temperatures

What is the hierarchy of controls?

Not all approaches for addressing safety and health are created equal. For example, taking steps to eliminate the hazard is more protective — and cost effective — than relying on the use of personal protective equipment around the hazard. The hierarchy of controls puts all the strategies in a ranked order so the most preferred options are always to be considered first:

1. **Elimination:** Physically remove the hazard.
2. **Substitution:** Replace the hazard with a safer alternative.
3. **Engineering controls:** Protect users via control equipment such as local exhaust ventilation or noise enclosures.
4. **Administrative controls:** Change practices via warnings and procedures.
5. **Personal protective equipment:** Protect users via safety equipment.

AIHA's 'Focus Four for Health' – manual material handling

You should know ...

Overexertion and bodily reaction is the second leading cause of nonfatal construction injuries involving days away from work. The leading cause (37 percent) of work-related overexertion MSDs in construction is for pushing, pulling holding, carrying and catching, followed by lifting (30 percent).

Many industries have reduced the weight of manually lifted materials to fewer than 50 pounds. Yet loads weighing 80 pounds or more are still common in construction.

Sources:

"Musculoskeletal Disorders in Construction and Other Industries," [The Construction Chart Book](#), p. 48. CPWR, 2018.

2015 Risk Outlook: Prescription Opioid Abuse: Risk Factors and Solutions. CNA Insurance Co., 2015.

Risk Factors	YES	NO
1. General		
1.1 Does the load handled exceed 50 pounds ?		
1.2 Is the object difficult to bring close to the body because of its size, bulk or shape?		
1.3 Is the load hard to handle because it lacks handles or cutouts for handles, or does it have slippery surfaces or sharp edges?		
1.4 Is the footing unsafe? For example, are the floors slippery, inclined or uneven?		
1.5 Does the task require fast movement, such as throwing, swinging or rapid walking?		
1.6 Does the task require stressful body postures, such as stooping to the floor, twisting, reaching overhead or excessive lateral bending?		
1.7 Is most of the load handled by only one hand, arm or shoulder?		
1.8 Does the task require working in extreme temperatures, with noise, vibration, poor lighting or airborne contaminants?		
1.9 Does the task require working in a confined area?		
2. Specific		
2.1 Does lifting frequency exceed five lifts per minute?		
2.2 Does the vertical lifting distance exceed 3 feet ?		
2.3 Do carries last longer than one minute ?		
2.4 Do tasks that require large sustained pushing or pulling forces exceed 30 seconds in duration?		
2.5 Do extended reach static holding tasks exceed one minute ?		

AIHA's 'Focus Four for Health' – noise

You should know ...

Hearing loss caused by exposure to noise is common among construction workers. One study found a lifetime probability of developing hearing loss averaging 60 percent among all trades, and up to 80 percent in some trades, such as welding.

A study of carpenters found that the average 25-year-old carpenter had already lost enough hearing that his or her hearing ability was about the same as that of a 50-year-old person who had not been exposed to noise on the job.

Source: Dement J, Ringen K, Welch L, Bingham E, Quinn P 2005. Surveillance of hearing loss among construction and trade workers at department of energy nuclear sites. *Am J Ind Med*, 48:348-358, https://www.academia.edu/26811529/Surveillance_of_hearing_loss_among_older_construction_and_trade_workers_at_Department_of_Energy_nuclear_sites.

Source: NIOSH. <https://www.cdc.gov/niosh/topics/noise/factsstatistics/charts/chart-50yroid.html>



AIHA's 'Focus Four for Health' – air contaminants

How toxic?

Highly toxic substances ...

1. Are more potent (small amounts can cause health effects)
2. Cause multiple health effects (e.g., affect lungs, liver, and kidneys versus lungs only)
3. Cause more irreversible effects (e.g., cancer versus irritation)

Do not overlook short tasks

Some construction tasks, such as setup, have little or no exposure.

However, studies show some brief construction tasks involve very high exposures, such that even a half hour or an hour can exceed limits — even if the rest of the shift has no exposure.

This is an issue for construction, where it is common to hear comments such as, "This dusty task is not a problem because it won't take very long."

You should know ...

Many OSHA PELS are outdated

"OSHA recognizes that many of its permissible exposure limits (PELs) are outdated and inadequate for ensuring protection of worker health.

"OSHA recommends that employers consider using the alternative occupational exposure limits because the Agency believes that exposures above some of these alternative occupational exposure limits may be hazardous to workers, even when the exposure levels are in compliance with the relevant PELs."

Source: <https://www.osha.gov/dsg/annotated-pels/>.

In other words, exposures could be *below* an outdated OSHA PEL but be *above* another, more up-to-date alternative exposure limit —meaning that health effects could occur.

Alternative OELS (such as the RELs, TLVs and other international OELs) should play a major role in judging exposures.

AIHA's 'Focus Four for Health' – high temperatures

You should know ...

Acclimatization is an important consideration

OSHA investigated 20 heat illness cases in 2012 to 2013 that involved 13 deaths.

Of those 13 deaths, 9 occurred on the first three days of the job.

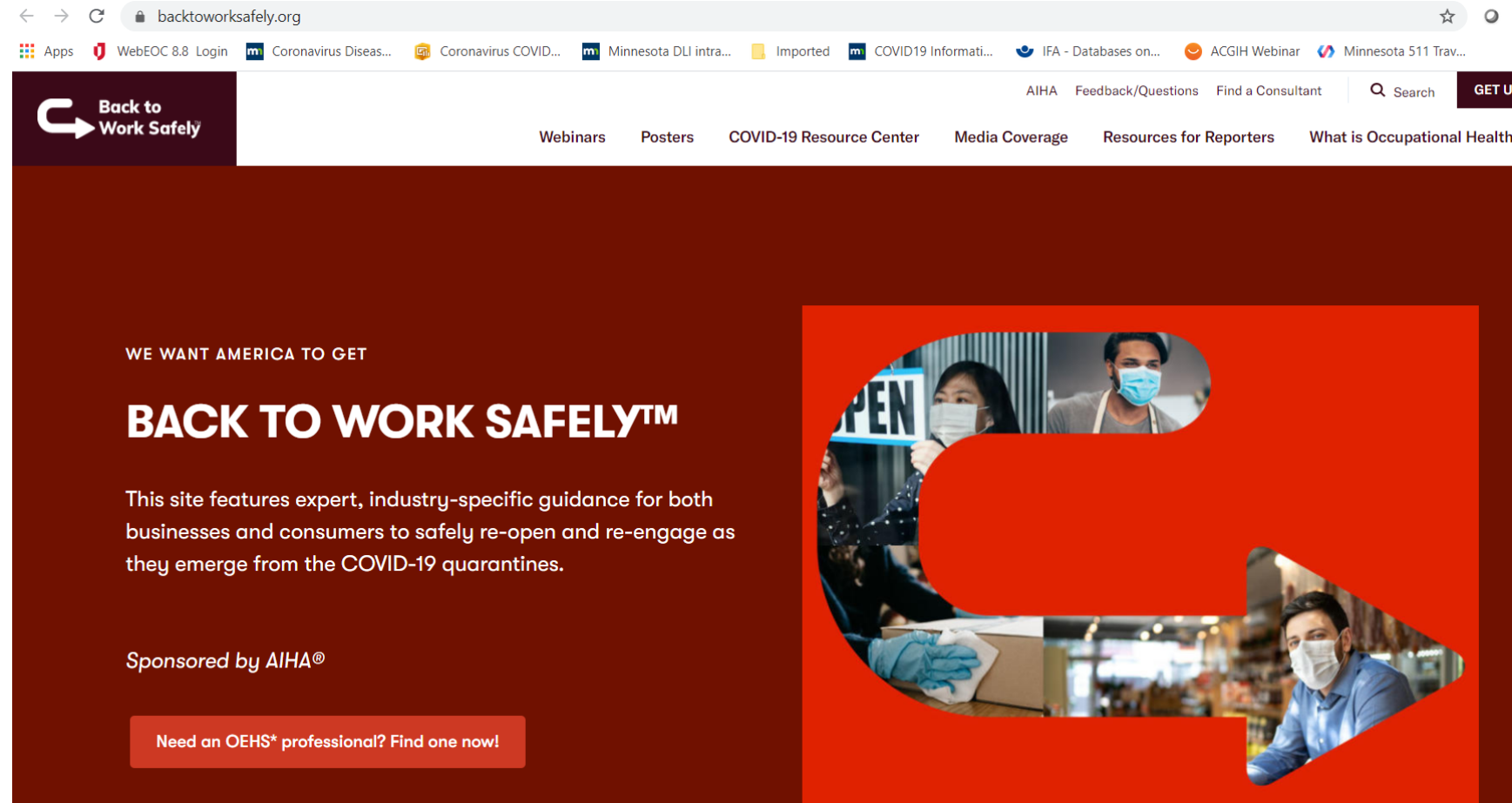
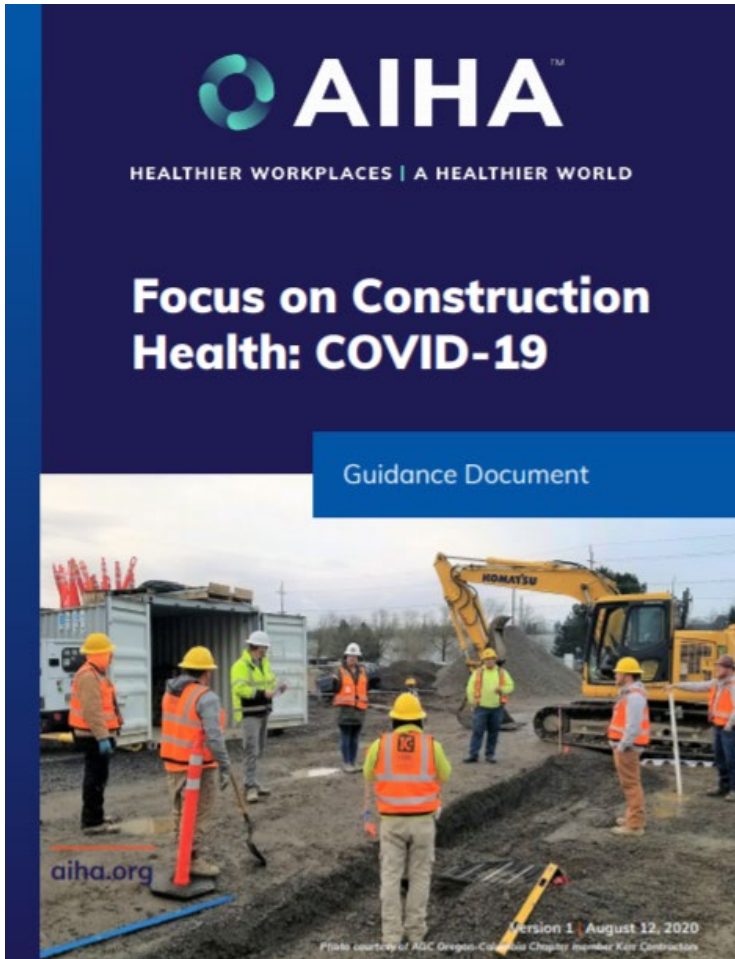
Of those 9 deaths, 4 occurred on the first day of the job.

You should know ...

These factors aggravate heat conditions

- Working in direct sunlight
- Protective clothing, especially semipermeable or impermeable types
- Respirator use
- Hot work such as welding or working around steam
- Carrying additional weight from tools and protective equipment

Focus on construction health: COVID-19



MNOSHA's newsletter

- *Safety Lines* is an online, quarterly publication of the Minnesota Department of Labor and Industry.
- Its purpose is to promote occupational safety and health and to inform readers of the purpose, plans and progress of Minnesota OSHA.
- Sign up via email to receive notification online at www.dli.mn.gov/OSHA/SafetyLines.asp.


The newsletter of Minnesota OSHA • January 2009 • Number 42

Safety Lines

2008: Minnesota OSHA's year in review

Compiled by Shelly Techar, MNOSHA Management Analyst, and Kelly Taylor, MNOSHA Program Analyst

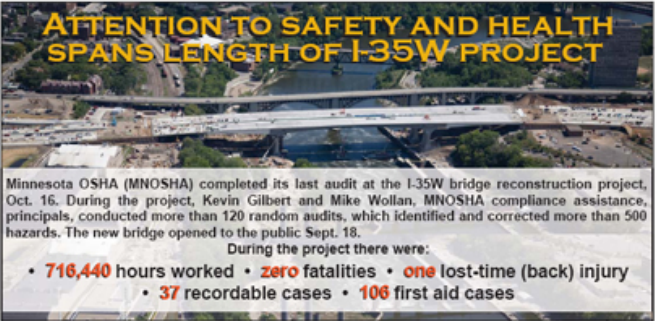
Performance review highlights
Each year, Minnesota OSHA (MNOSHA) conducts a review of its projected performance as defined in its performance plan, which is generated prior to the start of the federal fiscal-year (FFY), Oct. 1.



In FFY 2008, Minnesota OSHA:

- visited 2,591 establishments and identified 4,884 hazards;
- generated safety inspection results within 19 days on average, while the national average is 46 days;
- generated health inspection results within 33 days on average, while the national average is 59 days;
- resolved contested cases within 148 days on average, while the national average is 258 days;
- conducted 81 outreach presentations with an average participation level of 53 people; and
- signed a new partnership with the Minnesota Department of Transportation and Flatiron-Manson Joint Venture. (See *Safety Lines*, January 2008, *I-35W bridge rebuild partnership*).

For more information about MNOSHA's performance, the MNOSHA annual report is posted online during the first quarter of each calendar year at www.dli.state.mn.us/mnosha.html.



ATTENTION TO SAFETY AND HEALTH SPANS LENGTH OF I-35W PROJECT

Minnesota OSHA (MNOSHA) completed its last audit at the I-35W bridge reconstruction project, Oct. 16. During the project, Kevin Gilbert and Mike Wollan, MNOSHA compliance assistance, principals, conducted more than 120 random audits, which identified and corrected more than 500 hazards. The new bridge opened to the public Sept. 18.

During the project there were:

- **716,440** hours worked • **zero** fatalities • **one** lost-time (back) injury
- **37** recordable cases • **106** first aid cases

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Thank you

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