

## Wisconsin General Industry Safety Newsletter

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2009

### Workplace Violence

Workplace violence is a daily occupational risk for all businesses. For the first time since 2003, homicides out-numbered “struck by object” fatalities as the third most frequent fatal event in 2007.

The Bureau of Labor Statistics reported, as a preliminary number, 610 workplace homicides in 2007. The most shocking events are reported in the media but these incidents illustrate only a small number of incidents that actually occur. Workplace violence includes the obvious such as beatings, stabbings, shootings, rapes and suicides, but it also includes actions such as psychological trauma, threats, obscene phone calls, intimidation, harassment, stalking and verbal abuse. The source of the violence can be criminals, customers, clients, co-workers or personal relations.

Potential for occupational violence can exist in any business or occupation, but some workplace factors can increase the risk for violence. The risk factors include working in direct contact with the public, working in community-based settings, working in small numbers, working in high crime areas, working with unstable or volatile persons, having mobile workplaces, delivering goods or services, and exchanging money with customers. Occupations such as healthcare providers, social workers, retail workers, transportation drivers or police are at a greater risk to encounter violent situations.

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Damaged  
ladders should  
be taken out of  
service.



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What are the causes for workplace violence? It is not an easily answered question. Contributing factors include economic stresses such as downsizing, recession, layoffs and understaffing. Another factor could be a physiological stress such as events occurring in the employee's personal life.

There is also the argument that society is playing a role in the occurrence of workplace violence, such as, the availability of hand guns, violence in the media and the acceptability of violence for conflict resolution. The organization itself could contribute to the propensity of violent incidents.

Organizations that manage in an authoritative style, do not encourage creativity, do not empower employees to make decisions, have no means to air grievances or where a division exists between employees and management could be at greater risk.

Employers need to recognize that occupational violence is predictable. It doesn't just happen, but develops like a storm. Employees often hear or see the displeasure of co-workers, the threat from clients, the sabotage of product or the rumors of domestic violence. Employees may be reluctant to report these indicators to management due to a variety of reasons.

The employee may not know how or to whom they need to report and they may feel as if they will be labeled as a trouble maker. The employee may also be reluctant, if management itself is making the threat or they think that the threat is minor and not worth reporting.

OSHA recommends that all employers establish and maintain a violence prevention program. The components of any effective safety and health management system apply to the prevention of workplace violence. However, at a minimum, a workplace prevention program should include a clear policy of zero tolerance for workplace violence, verbal and nonverbal threats, or any other related actions.

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This employee, cleaning castings, is wearing both ear plugs and earmuffs. The amount of noise attenuation achieved from dual protection is not simply the combined ratings of the earplug and the earmuff. The addition of an earmuff adds only a few more decibels of attenuation, mostly in the low frequencies, and increases the noise reduction rating (NRR) by about 4 dB.



Electrical panels should never be opened by untrained persons.  
1910.332 addresses training and 1910.333 addresses safe work practices.

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Employees need a method to promptly report violent incidents and face no reprisals. A comprehensive plan for maintaining security in the workplace needs to be implemented. Liaisons with law enforcement representatives and others who can help identify ways to prevent and mitigate workplace violence need to be developed. Responsibility and authority for the program needs to be assigned to individuals or teams with appropriate training, skills and resources.

Training on risks, hazard controls, reporting procedures, emergency procedures, and post-incident medical and physiological care, needs to be provided.

Although there is no OSHA standard for the prevention of workplace violence, OSHA has published guidance for two industries. These industries are healthcare and late-night retail. Many of the suggestions made in the guidelines could apply to any industry, company or occupation.

The 2004 “*Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers*” can be found at <http://www.osha.gov/Publications/osha3148.pdf>. The 1998 “*Recommendations for Workplace Violence Prevention Programs in Late-Night Retail Establishments*” can be found at <http://www.osha.gov/Publications/osha3153.pdf>. Training PowerPoint presentations and handouts for these two industries are available at [http://www.osha.gov/dcs/ote/trng-materials/wp-violence/wp\\_violence.html](http://www.osha.gov/dcs/ote/trng-materials/wp-violence/wp_violence.html). In addition to OSHA’s publications, more resources can be found on the OSHA’s Safety and Health Topic page <http://www.osha.gov/SLTC/workplaceviolence/index.html>.

## Heat Stress

Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Burns may also occur as a result of accidental contact with hot surfaces or steam.

Workers at risk of heat stress include outdoor workers and workers in hot environments such as firefighters, bakery workers, farmers, construction workers, miners, boiler room workers, factory workers, and others. Workers at greater risk of heat stress include those who are 65 years of age or older, are overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat.

**Heat stroke** is the most serious heat-related disorder. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Symptoms of heat stroke include:

- Hot, dry skin (no sweating)
- Hallucinations
- Chills
- Throbbing headache
- High body temperature
- Confusion/dizziness
- Slurred speech

Take the following steps to treat a worker with heat stroke:

- Call 911 and notify their supervisor.
- Move the sick worker to a cool shaded area.
- Cool the worker using methods such as:
  - Soaking their clothes with water.
  - Spraying, sponging, or showering them with water.
  - Fanning their body.



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Employees performing abrasive blasting need to be provided proper respiratory protection such as this supplied air respirator according to 1910.94(a)(5). Other respirators, such as this N95, are not allowed to be worn inside of supplied air respirators.

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**Heat exhaustion** is the body's response to an excessive loss of the water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.

Symptoms of heat exhaustion include:

- Heavy sweating
- Extreme weakness or fatigue
- Dizziness, confusion
- Nausea
- Clammy, moist skin
- Pale or flushed complexion
- Muscle cramps
- Slightly elevated body temperature
- Fast and shallow breathing

Treat a worker suffering from heat exhaustion with the following:

- Have them rest in a cool, shaded or air-conditioned area.
- Have them drink plenty of water or other cool, nonalcoholic beverages.
- Have them take a cool shower, bath, or sponge bath.

**Heat syncope** is a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

Symptoms of heat syncope include:

- Light-headedness
- Dizziness
- Fainting

Workers with heat syncope should:

- Sit or lie down in a cool place when they begin to feel symptoms.
- Slowly drink water, clear juice, or a sports beverage.

**Heat cramps** usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

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Providing adequate liquids can help to eliminate heat stress hazards.

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Symptoms of heat cramps are usually muscle pain or spasms usually in the abdomen, arms, or legs.

Workers with heat cramps should:

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous work for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.
- Seek medical attention if any of the following apply:
  - The worker has heart problems.
  - The worker is on a low-sodium diet.
  - The cramps do not subside within one hour.

**Heat rash** is a skin irritation caused by excessive sweating during hot, humid weather.

Symptoms of heat rash include:

- Heat rash looks like a red cluster of pimples or small blisters.
- It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

Workers experiencing heat rash should:

- Try to work in a cooler, less humid environment when possible.
- Keep the affected area dry.
- Dusting powder may be used to increase comfort.

**Prevention** of heat stress in workers is important. Employers should provide training to workers so they understand what heat stress is, how it affects their health and safety, and how it can be prevented.

Employers should take the following steps to protect workers from heat stress:

- Schedule maintenance and repair jobs in hot areas for cooler months.
- Schedule hot jobs for the cooler part of the day.
- Acclimatize workers by exposing them for progressively longer periods to hot work environments.
- Reduce the physical demands of workers.
- Use relief workers or assign extra workers for physically demanding jobs.
- Provide cool water or liquids to workers.
  - Avoid drinks with caffeine, alcohol, or large amounts of sugar.
- Provide rest periods with water breaks.
- Provide cool areas for use during break periods.
- Monitor workers who are at risk of heat stress.
- Provide heat stress training that includes information about:
  - Worker risk
  - Prevention
  - Symptoms
  - The importance of monitoring yourself and coworkers for symptoms
  - Treatment
  - Personal protective equipment

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Workers should avoid exposure to extreme heat, sun exposure, and high humidity when possible. When these exposures cannot be avoided, workers should take the following steps to prevent heat stress:

- Wear light-colored, loose-fitting, breathable clothing such as cotton.
  - Avoid non-breathing synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of day.
- Take more breaks in extreme heat and humidity.
  - Take breaks in the shade or a cool area when possible.
- Drink water frequently. Drink enough water that you never become thirsty.
- Avoid drinks with caffeine, alcohol, and large amounts of sugar.
- Be aware that protective clothing or personal protective equipment may increase the risk of heat stress.
- Monitor your physical condition and that of your coworkers.



The 6th Annual Safety Day was held on June 11, 2009. Over 260 attendees listened to a wide range of topics such as lock out/tag out, warehouse safety, overhead cranes, and OSHAS 18001 Gap Analysis.

### **Region 5 General Industry Fatalities for May 2009 to July 2009**

#### SIC code and accident description

##### 0783—Ornamental Shrub and Tree Services

Five employees were trimming trees. Two were acting as flaggers, 2 as ground workers, and one in the aerial lift. One of the ground workers was picking up limbs and was struck in the head by a falling cut limb.

##### 0783—Ornamental Shrub and Tree Services

Three employees were trimming trees. One employee was in the tree cutting branches and two employees were on the ground assisting. The employee in the tree had just cut a branch and the other two employees were lowering it to the ground. The employee in the tree was repositioning himself when he contacted a 7200 volt power line.

##### 0241—Dairy Farm

An employee's clothing became entangled in a rotating power take off.

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According to the NFPA 484 Standard for Combustible Metal, at paragraph 6.3.2.5, dry type dust collectors for aluminum polishing machines shall be located outside of the building.



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#### 1381—Drilling Oil and Gas Wells

Two employees were power washing the outside of their building in preparation for painting. One employee worked from a manlift. As they worked around the building the power washer's hose became caught up in some pallets on the ground. In an effort to free the hose, the employee, still in the manlift, attempted to "whip" the hose free and possibly contacted some 7200 volt overhead power lines that ran across the property.

#### 3499—Fabricated Metal Products, Not Elsewhere Classified

An employee was welding steel plates to the frame of a large fuel tank. One of the plates did not line up right and the employee was working to square it up when the fabrication tipped over onto the employee.

#### 2011—Meat Packing Plants

An electrician, working on repairing light fixtures, was either shocked or had a heart attack. The investigation is continuing.

#### 2045—Prepared Flour Mixes and Doughs

An employee was performing fire watch duties during a plant modification project that involved torch cutting. The employee was behind a wooden railing placed around a floor opening. There was a gap in the wooden railing that was about 20 inches wide and was filled in with a loose skid or pallet. The employee fell through the 11 foot by 19 foot floor opening to the floor about 15 feet below.

#### 2875—Fertilizers, Mixing Only

An employee was being lifted over to a power screener so that he could remove wood debris from the top of the screen of the power screener using a pry bar. The employee was in the bucket of a front-end loader and a co-worker was driving the front-end loader. The employee driving the front-end loader hit the controls with his right shoulder unintentionally and caused the employee in the bucket to be crushed between the bucket and the power screener.

#### 3519—Internal Combustion Engines, Not Elsewhere Classified

An employee working on a milling machine was crushed in the transfer mechanism.

#### 3312—Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills

An employee was caught between a door and the building when the door shifted during maintenance work.

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#### 4911—Electric Services

Employees were training in self-rescue while working from heights. After viewing a video on how to perform a self-rescue the training continued to the field exercise. The field exercise was intended to familiarize employees with using their rescue devices to lower themselves down from a bucket truck or other raised work area. In order to perform the exercise, a rescue line was connected to an auger truck, the employee donned a fall protection harness and the descending-type rescue device. After rigging the device to the front of his harness and to the rescue line the employee was lifted from the ground to about 12 feet using the auger truck. The employee stayed suspended for a moment before attempting to descend, he appeared to struggle with the device until the rescue line dislodged from the rescue device and the employee fell to the ground.

#### 5032—Brick, Stone, and Related Construction Materials

An employee was breaking up bridged material in a hopper after loading in mulch. The employee fell into the 8 foot deep hopper and was pulled into the mixer by the auger.

#### 5191—Farm Supplies

An employee was approaching a propane tank filling area when an explosion occurred.

#### 5541—Gasoline Service Stations

A gas station/convenience store clerk was shot during a robbery attempt.



This welder is exposed to less than 2% of the 10 mg/m<sup>3</sup> OSHA limit for iron oxide fume and to less than 1% of the 5 mg/m<sup>3</sup> OSHA limit for manganese fume. Prolonged exposure to manganese fume at greater than 1 mg/m<sup>3</sup> can lead to a Parkinsonian syndrome known as manganism.

### Top Ten Violations

Listed below are the “top ten” cited violations found during Federal OSHA general industry inspections from October 2007 through September 2008.

<u>Rank</u>	<u>Standard</u>	<u>Hazard</u>
1.	29 CFR 1910.147	The Control of Hazardous Energy
2.	29 CFR 1910.1200	Hazard Communication
3.	29 CFR 1910.212	General Requirements for All Machines
4.	29 CFR 1910.134	Respiratory Protection
5.	29 CFR 1910.305	Wiring Methods, Components, and Equipment for General Use
6.	29 CFR 1910.178	Powered Industrial Trucks
7.	29 CFR 1910.303	General Electrical Requirements
8.	29 CFR 1910.219	Mechanical Power-Transmission Apparatus
9.	29 CFR 1910.215	Abrasive Wheel Machinery
10.	29 CFR 1910.132	General Personal Protective Equipment Requirements

This newsletter provides an overview of OSHA standards and does not alter or determine compliance responsibilities, which are described in the OSHA standards and the *Occupational Safety and Health Act*. Because interpretations and enforcement policy may change over time, the best sources for additional guidance on OSHA compliance requirements are current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.



Per 1910.253(d)(4)(iii) oxy/fuel gas outlets shall be marked with the name of the gas. These resistance welding shield gas outlets should comply with ANSI A13.1 Standard for Pipe Identification.

### Wisconsin Contact Information

#### Wisconsin OSHA Consultation Offices:

- Wisconsin State Laboratory of Hygiene, University of Wisconsin  
2601 Agriculture Drive, Madison, WI 53718-6780  
(608) 226-5240 (Health)
- Wisconsin State Laboratory of Hygiene, University of Wisconsin  
141 NW Barstow Street, Fourth Floor, Waukesha, Wisconsin 53188-3789  
800-947-0553 (Safety)

#### Wisconsin OSHA Enforcement Offices:

- Appleton Area Office, 1648 Tri Park Way, Appleton, Wisconsin 54914,  
(920) 734-4521, (920) 734-2661 FAX
- Eau Claire Area Office, 1310 W. Clairemont Avenue, Eau Claire, Wisconsin 54701  
(715) 832-9019, (715) 832-1147 FAX
- Madison Area Office, 4802 E. Broadway, Madison, Wisconsin 53716  
(608) 441-5388, (608) 441-5400 FAX
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Do you have comments or ideas for articles?

E-mail them to the Wisconsin General Industry Safety Newsletter at [Zortman.Chris@dol.gov](mailto:Zortman.Chris@dol.gov)

### Ideas for Articles for Upcoming Issues

Do you have any ideas for articles that you want to see or topics that you think are important?  
Please let us know at the email address listed just above.