Joint Safety Committee
Oregon Pacific-Cascade Chapter, NECA
IBEW Local 659
Tuesday April 23rd, 2024
Meeting Minutes

Rollcall: meeting called to order-In Person and Zoom
Approval of Previous Meeting Minutes

Communications

Discussed Load Securement in a ppt. In addition, discussed trailer hook up and load securement.
We talked about active shooter as it is in this month's tool box talks.
Also discussed some possible jobs to visit for May Safety Focus Walk

Please see NECA web portal for downloads for load securement.

OSHA Injury/Incidents (July-December)

Recordable

1.1 Back Injury lifting customer's 200lb AV 1.23
1.2 Finger poke screw through gloves 2.13
1.3 Wrist/arm rotating light pole 2-16
1.4 Foreign substance in eye unknown 2.21
1.5 Hand injury, laceration, using porta band 3.12
1.6 Metal door dropped on worker foot Electro magnet 3.29
1.7 Drill into finger missed screw 4.15
1.8 Taking out ceiling fan using ladder 4.25

First Aid/Near-miss

1.9 Worker fell on a pipe when ladder slipped 1.10
1.10 Cut finger with porta band 1.31
1.11 Electric shock to hand 4.08

Class Schedule- Posted online

Next Meeting – Safety Walks

Adjournment

Vaughn Pugh
Integrity Safety-Consultant

April 23, 2024

Wiring a green tomorrow

NECA IBEW
OREGON PACIFIC - CASCADE LOCAL 280

Joint Safety Committee
Oregon Pacific-Cascade Chapter, NECA
IBEW Local 659
Tuesday June 19th , 2024
Meeting AGENDA

Roll call: meeting called to order, In-Person and Zoom
Approval of previous Meeting Minutes

1.0 Communications

1.1 Review of Heat Stress and Wildfire requirements
1.2 How we doing on any needs you might have that I can help?

2.0 New Business- (safety packets distributed)

2.1 Audiometric Testing
2.2 Review of Safety Bresk Walks
2.3 Other items

3.0 OSHA Injury/Incidents (January-June)

Recordable

3.1 Back Injury lifting customer's 200lb AV 1.23
3.2 Finger poke screw through gloves 2.13
3.3 Wrist/arm rotating light pole 2-16
3.4 Foreign substance in eye unknown 2.21
3.5 Hand injury, laceration, using porta band 3.12
3.6 Metal door dropped on worker foot Electro magnet 3.29
3.7 Drill into finger missed screw 4.15
3.8 Taking out ceiling fan using ladder 4.25
3.9 Lifting 50lbs resulting in hernia 5.15
3.10 Cut to finger while trimmer breaker resulting in stiches 5.20

First Aid/Near-miss

3.11 Worker fell on a pipe when ladder slipped 1.10
3.12 Cut finger with porta band 1.31
3.13 Electric shock to hand 4.08

4.0 Class Schedule- Posted online

All NECA Contractors are reminded that work related accidents and incidents should be reported via the Accident/ Incident report to the NECA office for consideration by the committee. If you need a copy of the report, contact the Chapter office.

IMPORTANT REMINDER: The variance granted to NECA/IBEW by OR-OSHA requires participation by both Labor and Management Representatives at the Joint Innovative Safety Committee. For the Committee to be viable and provide assistance to Contractors and IBEW Members we need to have consistent attendance of all committee members.

Next Meeting: July 23rd , 2024

POWERFUL TRADITION ELECTRIFYING FUTURE

OREGON PACIFIC-CASCADE CHAPTER

Safety Meeting Packet

June 2024

1040 Gateway Loop, Suite A ◆ Springfield, OR 97477

541-736-1443 Office ◆ 541-736-1449 Fax

2024 LABOR HOURS RECAP
ALL SIGNATORY CONTRACTORS

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
280	Inside	364,603	4	91,151	74,012	101,934	100,773	87,884								
280	Inside Appr.	98,796	4	24,699	18,960	26,703	29,014	24,119								
280	MAI	0	0	#DIV/0!	0	0	0	0								
280	Material	23,913	4	5,978	5,609	6,660	6,323	5,321								
280	Residential	36,843	4	9,211	6,746	12,107	9,655	8,335								
280	Resi. Appr.	18,532	4	4,633	3,512	5,006	5,602	4,412								
280	S & C	66,138	4	16,535	13,307	17,510	18,882	16,439								
280	S & C Appr.	18,568	4	4,642	3,633	4,927	5,131	4,877								
280	Support Tech/MOU	27,379	4	6,845	5,417	7,965	8,376	5,621								
	TOTAL 280	**654,772**	4	**163,693**	**131,196**	**182,812**	**183,756**	**157,008**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total NECA	**576,025**	4	**144,006**	**114,608**	**160,181**	**163,168**	**138,068**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% NECA	**87.97%**	4		**87.36%**	**87.62%**	**88.80%**	**87.94%**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
659	Inside	73,260	4	18,315	14,003	19,007	21,836	18,414								
659	Inside Appr.	28,761	4	7,190	5,743	6,772	8,892	7,354								
659	Material	1,736	4	434	300	378	565	493								
659	Residential	1,283	4	321	381	392	57	453								
659	Resi. Appr.	1,407	4	352	366	332	391	318								
659	S & C	3,401	4	850	584	861	958	998								
659	S & C Appr.	0	0	#DIV/0!	0	0	0	0								
	Total 659	**109,848**	4	**27,462**	**21,377**	**27,742**	**32,699**	**28,030**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total NECA	**82,891**	4	**20,723**	**15,350**	**20,963**	**25,542**	**21,036**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% NECA	**75%**	4		**72%**	**76%**	**78%**	**75%**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
932	Inside	45,182	4	11,296	10,071	11,612	12,194	11,305								
932	Inside Appr.	17,749	4	4,437	3,824	4,504	5,168	4,253								
932	Residential	864	3	288	0	327	145	392								
932	Resi. Appr.	2,202	4	551	378	545	580	699								
932	S & C	3,215	4	804	455	975	985	800								
932	S & C Appr.	816	3	272	0	184	397	235								
	Total 932	**70,028**	4	**17,507**	**14,728**	**18,147**	**19,469**	**17,684**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total NECA	**55,651**	4	**13,913**	**11,471**	**13,943**	**16,524**	**13,713**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% NECA	**79%**	4		**78%**	**77%**	**85%**	**78%**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
	Grand Total	**834,648**	4	**208,662**	**167,301**	**228,701**	**235,924**	**202,722**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total NECA	**714,567**	4	**178,642**	**141,429**	**195,087**	**205,234**	**172,817**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% NECA	**86%**			**85%**	**85%**	**87%**	**85%**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**

2024 LABOR HOURS RECAP
NECA MEMBERS

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
280	Inside	321,280	4	80,320	64,139	91,106	89,245	76,790								
280	Inside Appr.	85,795	4	21,449	15,966	23,445	25,431	20,953								
280	MAI	0	0	#DIV/0!	0	0	0	0								
280	Material	21,519	4	5,380	5,160	6,095	5,686	4,578								
280	Residential	21,998	4	5,500	3,854	5,927	6,615	5,602								
280	Resi. Appr.	14,811	4	3,703	2,462	4,171	4,728	3,450								
280	S & C	64,961	4	16,240	13,048	17,217	18,487	16,209								
280	S & C Appr.	19,698	4	4,925	4,932	4,871	5,030	4,865								
280	Support Tech/MOU	25,963	4	6,491	5,047	7,349	7,946	5,621								
	Total 280	**576,025**	4	**144,006**	**114,608**	**160,181**	**163,168**	**138,068**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
659	Inside	55,930	4	13,983	10,417	14,765	17,052	13,696								
659	Inside Appr.	21,048	4	5,262	3,956	4,798	6,718	5,576								
659	Material	1,042	4	261	112	208	407	315								
659	Residential	1,010	4	253	181	219	309	301								
659	Resi. Appr.	460	4	115	100	112	98	150								
659	S & C	3,401	4	850	584	861	958	998								
659	S & C Appr.	0	0	#DIV/0!	0	0	0	0								
	Total 659	**82,891**	4	**20,723**	**15,350**	**20,963**	**25,542**	**21,036**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Local#	Contract Type	Annual Total		Average Hrs/Mo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
932	Inside	36,358	4	9,090	7,733	9,157	10,537	8,931								
932	Inside Appr.	14,826	4	3,707	3,173	3,714	4,392	3,547								
932	Residential	40	1	40	0	0	0	40								
932	Resi. Appr.	643	4	161	110	160	213	160								
932	S & C	2,936	4	734	455	696	985	800								
932	S & C Appr.	848	3	283	0	216	397	235								
	Total 932	**55,651**	4	**13,913**	**11,471**	**13,943**	**16,524**	**13,713**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Grand Total	**714,567**	4	**178,642**	**141,429**	**195,087**	**205,234**	**172,817**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

NECA
OREGON PACIFIC CASCADE CHAPTER
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION

Safety Training Topics

July 2024

Fire Evacuation

Fire Prevention

Class I Precautions

Class II and Class Ill Precautions

SAFETY TRAINING TOPIC

Fire Evacuation

PREPARATION

When entering any work area, note the location of fire exits and fire extinguishers. You will need an exit to get out of the building, and you may need an extinguisher to get to the exit.

To locate exits, look for exit signs on the perimeter. Report to your foreman any doors that are locked with any device other than a breakaway lock. Such locking is a violation of federal law and has often been a death sentence for workers.

Locate more than one exit. If yon are on a floor other than the ground floor, you will be exiting into a stairwell.

If any exit is not clearly marked, notify your foreman. If the path to an exit is not supplied with the necessary emergency lighting and exit signs with arrows, notify your foreman.

To locate extinguishers, look for red stripes on columns or similar indications. Find the extinguisher and note its type. Typically, you will want a Type B or Type C, which both use an extinguishing gas. Check to see if the extinguisher is fully charged or not. If not, notify your foreman so the work area can be made safe.

ESCAPING

If you hear a fire alarm while in an equipment room, leave immediately. Rooms that contain generators often have automated fire doors that trap inside, and the extinguishing agent will asphyxiate you.

Your primary goal is to get out of the building and to an assembly area. If you don't smell smoke and can quickly shut off power to machinery near you, shut it off. If you do smell smoke or cannot find the shut-off, leave the machinery and evacuate as quickly as possible.

You can use an extinguisher to make an escape route through the flames, rather than using it to put out the flame. If you need to make an escape route through the flames, then smoke inhalation is a real danger. Stay as low as possible.

You can use the extinguisher bottom to break glass or door latches if you can't find another suitable object. Take care to aim the valve away from people, as this kind of action may damage the extinguisher.

Before going through any door, touch it with your fingertip. If it doesn't feel hot, touch it with your hand. If the door is hot, there is flame on the other side and opening the door is likely to cause the flame to burst forth to feed on the new oxygen on your side of the door. Look for a different route out. If there is no other route, you may need to open the door in a manner that keeps you out of the flame path. Once it's open, use the extinguisher to clear a way out.

INJURED OR DISABLED OCCUPANTS

Assist others in evacuating as best you can. Use teamwork. For example, two people can carry a wheel-chaired person in the chair.

Do not stop to apply first-aid to injuries that aren't immediately life-threatening. Get the injured person out of the building. It is very likely EMTs are already on site or on the way.

POST EVACUATION

Meet in the designated assembly area. Don't forget where this area is.

If you end up in an assembly area other than your own and can't get to that area or are confused because of the commotion, notify others around you what company you are with and that you need to contact your assembly area leader or your foreman.

Once you are at the designated assembly area, try to discern who in your crew is not yet there.

Do not go back into the building to rescue a missing crew member. Leave that job to people who are trained and equipped for it.

Stay clear of rescue personnel, equipment, and operations.

Do not smoke, eat, or drink in the fire operations area, until given the OK by the rescue personnel. You have no idea what airborne contaminants you may ingest by smoking, eating, or drinking.

REVIEW AND DISCUSSION

- What should you note the location of when entering a work area? How?
- What should you do if an exit is not clearly marked?
- What should you do if an exit is chained and locked?
- What is your primary goal when evacuating?
- What should you do if a closed door blocks your exit path?
- What are some ways you can help disabled people out of the building?
- Suppose a coworker has fallen and broken his arm, and his nose is bleeding. Should you wrap the arm and stop the bleeding? Why or why not?
- Where should you go after you evacuate, and what should you do when you get there?
- What if you don't make it to your assembly area-perhaps you get out on the wrong side of the burning building? What should you do?
- What other emergency situations might require special considerations?

SAFETY TRAINING TOPIC

Fire Prevention

FACTS AND FIGURES

Workplace fires and explosions kill more than 200 workers each year and injure another 5,000.

21.5% of industrial fires are from electrical causes.

Smoking causes 17% of industrial fires, while cutting and welding cause 5.5%.

PREVENTION STEPS

Use the proper circuit protection on equipment. Never bypass protection "just this once." Temporary bypasses are easily forgotten and are too dangerous even when they are not forgotten.

Smoking is the number two cause of industrial fires. It is the number one cause of premature baldness and male impotence. It is a leading cause of cancers of the bones, bladder, testicles, bowels, brain, tongue, and lungs. It is a leading cause of heart attacks, emphysema, and other illnesses. Think about this when you decide to light up. If you light up in the workplace, you endanger everyone.

To reduce the fire danger from smoking, smoke only in approved areas and use the ashtrays provided. A carelessly flicked ash or tossed butt can easily roll under an ignitable and cause a fire. It is also easy to ignite a trail of fuel fumes, which can then ignite the fuel from a considerable distance.

Pick up all food wrappers, beverage containers, napkins, and other disposable items used at meals and breaks. Dispose of them properly to prevent attracting rodents and insects.

Clean up any oil, fibers, or dust on or around equipment and machinery.

If an oil spill is too big to clean up easily, report the spill to your foreman. If you must leave the area to report the oil, leave some kind of marker-an oil pig or other absorbent material is sufficient-so others can see the spill.

If fueling a portable generator or heater, use an approved fuel can and dispenser. Do not, for example, use a paper funnel when adding fuel. Try to do the refueling outside, away from ignition sources.

Store flammable and combustible materials in appropriate containers away from heat sources. For example, place touch-up paint in yellow lockers made for storing such materials.

Dispose of flammables-solvents, fuel, oil, and the like-according to established guidelines. Most likely, this will be in a container just for flammables.

Dispose of ignitables – paper, cloth, cardboard, and the like – according to established guidelines. Most likely, this will be in a regular trash container. Never leave open flames unattended.

Before using spark-producing equipment, such as a welder, ensure the work area is free of flammables.

Before using flame-producing equipment, such as a cutting torch, ensure the work area is free of ignitables.

Arsonists are a reality. Support suspicious activity to your foreman and to security.

FIRE HAPPENS

Keep fire exits and escape routes clear and well-marked.

Know the location of alarm boxes and fire extinguishers.

REVIEW AND DISCUSSION

- What is the number one cause of industrial fires?
- What are some ways to prevent electrical fires?
- What is the number two cause of industrial fires?
- What are some cautions about smoking?
- Why shouldn't you eat in electrical rooms?
- What should you do about oil leaks?
- What should you do about small oil spills? Big ones?
- What are some cautions about fueling portable equipment?
- Where should you store flammables?
- What is the difference between fire prevention and fire protection?

SAFETY TRAINING TOPIC

Class I Precautions

DEFINITION OF CLASS I

The National Electrical Code defines Class I environments as "those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures."

A LOCATION IS CLASS I IF

- Enough flammable gases or vapors may be present in the air to create ignition.
- Ignitable concentrations of gases or vapors can exist under normal operating conditions.
- Ignitable concentrations of gases or vapors may exist frequently because of leakage, or because of repair or maintenance operations.
- The breakdown or faulty operation of equipment or processes might release ignitable concentrations of gases or vapors.
- People are handling volatile flammable liquids.
- Any of several other conditions, listed in the NEC Article 500.5, apply.

HAZARD PREVENTION

Prior to starting work in a Class I environment, you need to review NEC Article 501. Be sure to discuss any questions you have with your foreman; do not assume.

Absolutely no smoking in a Class I location. If you are a smoker, go to a designated smoking location. Standing just beyond the edge of a Class I location is not sufficient.

Do not bring welding equipment into a Class I location without a welding permit that specifically addresses the Class I concerns.

Do not bring any communication devices, sparking tools, regular flashlights, PDAs or other electronic equipment into a Class I location without approval from the site safety director. If in doubt, ask your foreman.

Ensure motors, receptacles, and communications equipment are rated for Class I locations.

Check any arcing devices you will install to ensure they are approved for Class I use. Such devices include breakers, switches, motor controllers, and fuses. Ensure luminaires are explosion-proof and guarded against physical damage.

Ensure instrumentation and controls are either in their own Class I housings or are mounted in Class I enclosures.

Apply seals as required per NEC Article 501.

Use only heavy-use industrial grade flexible cords. Typically, these will be thermoset-jacketed rather than thermoplastic or thermoplastic elastomer. Ensure the cord has the grounding pin intact, and the jacket is free of cracks or other deformities. Support the cord so there is no tension on the terminal connections. Provide suitable seals where these enter boxes.

Ensure all non-current carrying metal parts are bonded to ground. Where you have locknuts or bushings, install bonding jumpers. You cannot use a locknut or bushing as part of the grounding path.

REVIEW AND DISCUSSION

- What is a Class I location?
- What are some conditions or circumstances that would make a location Class I?
- Which NEC Article should you read and be familiar with prior to working in a Class I location?
- If you need to weld in a Class I location and your welding permit doesn't specifically apply to Class I, what should you do?
- Should you assume small equipment, such as a pager or cell phone, is safe for a Class I location? Why or why not? What should you do?
- What do you need to ensure about the rating of every item you install in a Class I location?
- In addition to being Class I rated, what other requirement must luminaires meet?
- If a piece of equipment comes with a flexible cord that is lamp cord, should you use it or replace it?
- How should you support flexible cords?
- What are some grounding and bonding issues that apply to Class I locations?

SAFETY TRAINING TOPIC

Class II and Class Ill Precautions

DEFINITION OF CLASS II AND CLASS III

While Class I locations contain combustible gases, Class II locations contain combustible dust, and Class III locations contain ignitable fibers.

A LOCATION IS CLASS II IF

- Enough combustible dust may be present in the air to create ignition.
- Ignitable concentrations of combustible dust exist under normal operating conditions.
- The breakdown or faulty operation of equipment or processes might release ignitable concentrations of combustible dust.
- Any of several other conditions, listed in the NEC Article 500.5, apply.

HAZARD PREVENTION

Prior to starting work in a Class II environment, yon need to review NEC Article 502. Be sure to discuss any questions you have with your foreman; do not assume.

Prior to starting work in a Class III environment, yon need to review NEC Article 503. Be sure to discuss any questions you have with your foreman; do not assume.

Absolutely no smoking in a Class II or Class III location. If you are a smoker, go to a designated smoking location. Standing just beyond the edge of a Class II or Class III location is not sufficient.

Do not bring welding equipment into a Class II or Class III location without a welding permit that specifically addresses the hazards of that location.

Ensure motors, receptacles, luminaires, and communications equipment are rated for Class II or Class III locations, as appropriate. If in doubt, contact the supplier after reviewing the requirements in NEC Article 502 or 503 as appropriate.

Check any arcing devices you will install, to ensure they are approved for Class II or Class III use, as appropriate. Such devices include breakers, switches, motor controllers, and fuses. If in doubt, contact the supplier after reviewing the requirements in NEC Article 502 or 503 as appropriate.

Ensure instrumentation and controls are either in their own Class II or Class III housings or are mounted in Class II or Class III enclosures, as appropriate. Apply seals as required per NEC Article 502 or 503, as appropriate.

Ensure all non-current carrying metal parts are bonded to ground. Where you have locknuts or bushings, install bonding jumpers. You cannot use a locknut or bushing as part of the grounding path.

REVIEW AND DISCUSSION

- What are the differences between locations that are Class I, Class II, and Class Ill?
- What are some conditions or circumstances that would make a location Class II?
- Is smoking permitted in an undesignated location adjacent to a Class II or Class Ill location?
- Which NEC Article should you read and be familiar with prior to working in a Class II location?
- Which NEG Article should you read and be familiar with prior to working in a Class Ill location?
- If you need to weld in a Class II location and your welding permit doesn't specifically apply to Class II, what should you do?
- What do you need to ensure about the rating of every item you install in a Class II or Class Ill location?
- What do you need to verify about arcing devices you are to install?
- What are the requirements for instrumentation and controls in Class II and Class Ill locations?
- What are some grounding and bonding issues that apply to Class I locations?

integrity safety services

Weekly Safety Meeting

Heat Related Illness

Date: _____ Jobsite: _____

Discussion Leader:

_____

Attendance Sign- In:

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Summary

Oregon is known for its extremes. During summer months we can be exposed to heat exhaustion. Excessive heat causes accidents in many ways. It becomes more difficult to concentrate on the job, you sweat, you get tired and nervous, and begin making errors in judgment. When the temperature exceeds 80°, everyone needs to be aware of the danger signs.

Guide for Discussion

How to prevent heat exhaustion:

- Avoid consuming alcohol and ice water while working.
- Drink plenty of cool fluids; citrus or fruit juices work best. (Between 35 and 77 degrees)
- Avoid heavy, fatty-type foods.
- Wear light, loose clothing.
- Avoid fatigue; get plenty of rest.
- Replace lost body salts.
- See a doctor if you are not feeling well.

Outdoor Temperature Action Level-	
Any time temperature is at or above	80^0

Anytime temperature is above 90^0

- Use the Buddy System
- Ensure effective way to communicate to workers
- Ensure employees are monitored for effects
- Additional breaks as needed

Above 100^0 15-minute break every hour

For more high heat information see https://osha.oregon.gov/OSHAPubs/5866.pdf

How to recognize heat exhaustion:

- A person is dazed, staggers or becomes dizzy.
- There is a feeling of nausea or vomiting; the person also can feel chilly.
- Their face looks pale.
- There is a weak pulse and body temperature is below normal.
- A person is lying out unconscious.

What to do:

- Call for emergency medical assistance. (Review "Care For The Injured")
- Keep the victims lying down with their head lower than their feet in a shaded or air-conditioned area
- Loosen the victim's clothing.
- Keep the victim warm. (Remember, one of the results is the person feels chilly.)
- Give fluids if possible. Avoid ice water and alcohol. Salt solutions are best.

Additional Discussion Notes:

_____

_____

Remember

Both heat exhaustion and sunstroke are serious matters. In both cases, the body is reacting to a life threatening situation. Do not take chances. Should you begin to feel ill, take a break and drink some cool (not ice) water or something else other than an alcoholic beverage. Both injuries frequently cause a lack of consciousness; in our business, that can lead to a serious injury.

Frequently Asked Questions (FAQs): Heat Illness Prevention

(OARs 437-002-0156 and 437-004-1131)

Table of contents

Note: Because worker exposure to high temperature conditions that can increase the risk of heat illness is not limited to a specific industry, work activities covered under Division 3 (Construction) or Division 7 (Forest Activities) are required to comply with OAR 437-002-0155, per additional applicability requirements under OAR 437-003-0005 and OAR 437-007-0004, respectively. Agricultural employers are required to comply with 437-004-1131.

Section (1) Scope and application

To whom does this rule apply?

This standard applies whenever an employee performs work activities, whether in indoor or outdoor environments, where the heat index (apparent temperature) equals or exceeds 80 degrees Fahrenheit.

When did this rule take effect?

The rule went into effect on June 15, 2022.

How long will it remain in effect?

The rule will remain in effect unless amended or repealed by Oregon OSHA.

When employees are inside, when does the rule apply?

When the outside ambient air temperature increases the indoor heat index to equal or exceed 80 degrees Fahrenheit, this rule applies. An exception to this rule is when an employee's exposure to heat is generated only from the work process – such as what occurs in foundries – and is not subject to this standard. In such cases, employers must follow the requirements of OAR 437-002-0144(2).

However, when two of the same hazards exist – heat generated from a process and ambient heat – employers must follow the requirements that provide the higher level of employee protection.

Salem Central Office
350 Winter St. NE
Salem, OR 97301-3882

Phone: 503-378-3272
Toll-free: 800-922-2689
Fax: 503-947-7461

Section (2) Exemptions

Are there exemptions to these rules?

The following workplaces and operations are fully exempt from these rules:

- Incidental heat exposures where an employee is not required to perform work activities for more than 15 minutes in any 60-minute period.
- Exposures to heat generated from the work process – such as occurs in bakeries – are not subject to this standard. In such cases, employers must follow the requirements of Division 2, Subdivision J, OAR 437-002-0144(2).

Note: In the summary of the Comments and Agency Decision document published in May 2022, Oregon OSHA added a note to clarify when the rule related to hot processes applies. It is Oregon OSHA's intention that heat generated only by the processes will be covered by OAR 437-002-0144(2). However, when additional heat is introduced into the workplace outside of the hot process, then this rule would apply as well. When these two rules are compared to one another, the heat illness prevention rules are the most protective when it comes to protecting employees from experiencing a heat-related illness.

- When employees are engaged in emergency operations directly involved in the protection of life or property, or the restoration of essential services – such as evacuation, rescue, medical, structural firefighting, law enforcement, utility servicing – the rules do not apply.
- Buildings and structures that have a mechanical ventilation system that keeps the heat index below 80 degrees Fahrenheit are not subject to these rules. This exemption only applies when the mechanical ventilation system is functioning normally.

The following workplaces and operations are partially exempt from these rules:

- Employers whose employees perform either "rest" or "light" workloads (refer to Table 1 under section 1 in Appendix A, Information for Heat Illness Prevention) are exempt from the requirements of sections (3) through (10) of the rules only when the heat index is less than 90 degrees Fahrenheit.
- Associated support activities for wildland firefighters such as fire camp services and fire management are exempt only from the requirements of section (7) of the rules.
- Employees who work from home are subject only to the training requirements in sections (9) and (10) of the rules.

My building has a mechanical ventilation system that keeps the heat index below 80 degrees Fahrenheit; however, it is currently broken. Am I required to follow the heat illness prevention rules?

Yes. The exemption only applies if the mechanical ventilation system is functioning normally.

Do I need to train my employees who work from home?

Employees who work from home are subject only to the training requirements in sections (9) and (10) of the rules.

Back to Table of Contents

OSHA | Oregon OSHA
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440-5866 (05/23/COM)

What are some engineering or administrative controls that can be used to lower the risk of an employee experiencing a heat-related illness?

Engineering controls that require a physical change to the worksite are mostly limited to five areas:

1. Increased ventilation
2. Air cooling
3. Use of fans
4. Shielding of the heat source
5. Use of insulation

There are also **administering controls** that are mainly limited to five areas:

1. Limiting or modifying the duration of exposure time (e.g., work/rest)
2. Reducing the metabolic component of the total heat load
3. Enhancing the heat tolerance of the workers by, for example, heat acclimatization and physical conditioning
4. Training the workers in safety and health procedures for work in hot environments
5. Medical screening of workers to be aware of which individuals have low heat tolerance and/or low physical fitness

Today, the heat index is predicted to be more than 80 degrees Fahrenheit, but it won't reach that heat index until the late afternoon; does the rule apply all day?

No; the rule only applies at the time when the heat index exceeds 80 degrees Fahrenheit.

Do indoor swimming pools fall under the scope of this rule?

Indoor swimming polls present unique workplaces, as due to the large volume of heated water, the humidity in these environments is relatively high and, in most instances, higher than the relative humidity outdoors. Employees at indoor swimming pools have access to drinking water and shade. Based on the workload examples in the Informational Appendix, lifeguards indoors would be mostly performing "light" workloads.

What about lifeguards at an outdoor pool that sit under the shade for the majority of their shift; are they required to take a heat illness prevention rest break in the shade?

No, lifeguards that spend the majority of their shift sitting in the shade, performing either "rest" or "light" work, are not required to take their heat illness prevention rest breaks in the shade.

Does this rule apply to kitchens and cooking areas?

Employee exposures to heat generated from only a work process are covered under Division 2, Subdivision J, OAR 437-002-0144(2) – such as occurs in foundries or bakeries – are not subject to this standard unless employees are also exposed to a heat index that equals or exceeds 80 degrees Fahrenheit.

The heat illness prevention rule requirements still apply in a kitchen setting. The rules would not apply in situations where the heat conditions exist when the employer determines there's no influence on the indoor heat index from the outdoor ambient temperature. Where ambient temperatures are exacerbated by work processes, such as you would find in a kitchen, the heat rule still expects you to address those exposures.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

For group homes: An individual with developmental disabilities lives independently and a staff member provides in-home care for her for two hours a day. When the staffer arrives, there is no air conditioning or fan, and it's 85 degrees inside. What are the employer's responsibilities?

The answer to this depends on several factors. To begin with, Oregon OSHA does not always have jurisdiction over adult foster homes, as outlined in this memo: https://osha.oregon.gov/OSHARules/interps/jurisdictionadultfosterhomes.pdf. When Oregon OSHA does not have jurisdiction over a business, none of our rules apply, including the rules for excessive heat.

If the employer is covered by Oregon OSHA's jurisdiction, we would not require the employer to install equipment in a client's home. However, it is the responsibility of every employer to ensure their employees are adequately protected from any recognized hazard. If there are clients who prefer a warm environment and the weather forecast anticipates high heat, you may want to have your employees make those visits earlier in the day to avoid the heat.

You may also look to personal cooling options for your employees when you cannot rearrange schedules. If no other options are available, you still need to take the heat into account when the heat index reaches levels of concern and ensure employees are adequately protected.

My employees work in a building that has air conditioning, but what happens if the air conditioning breaks?

If the air conditioning breaks and the indoor heat index equals or exceeds 80 degrees Fahrenheit, then the heat illness prevention rules apply. If Oregon OSHA receives a complaint about this situation, it will be evaluated on a case-by-case basis. OSHA Compliance Officers should discuss this with their managers.

What are the rules for when the heat index is 80 degrees Fahrenheit or more?

Employers must provide the following:

- Access to sufficient shade
- Access to 32 ounces of water per hour for each employee at all times
- Effective communication in the event of an emergency
- Training about workplace risk factors and controls, employee rights, and personal risk factors to all employees *before* they are exposed to a heat index of 80 degrees Fahrenheit

What is the heat index and how do you calculate the heat index inside?

The heat index, also known as the apparent temperature, is what the temperature feels like to the human body when relative humidity is combined with the air temperature. The heat index is calculated using equations published by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service. It can be readily determined using the OSHA-NIOSH Heat Safety Tool App (https://www.cdc.gov/niosh/topics/heatstress/heatapp.html) or the online calculator available from the National Weather Service (https://www.wpc.ncep.noaa.gov/html/heatindex.shtml).

One may measure the indoor temperature and relative humidity, then input into the NIOSH Heat Safety Tool App, or one may measure the indoor temperature and relative humidity, then use the NOAA Heat Index Calculator to determine the heat index temperature. Lastly, monitors that measure the heat index both indoors and outdoors are available and relatively inexpensive.

Back to Table of Contents

OSHA | Oregon OSHA
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440-5866 (05/23/COM)

What is a heat illness?

Heat illnesses are medical conditions resulting from the body's inability to cope with a particular heat load, and include heat cramps, heat exhaustion, heat syncope, and heat stroke.

What are some warning signs and symptoms of heat-related illnesses?

Heat Stroke
High body temperature (103 degrees Fahrenheit or higher); hot, red, dry, or damp skin; fast, strong pulse; headache; dizziness; nausea; confusion; and losing consciousness (passing out)

Heat Exhaustion
Heavy sweating; cold, pale, and clammy skin; fast, weak pulse; nausea or vomiting; muscle cramps; tiredness or weakness; dizziness; headache; and fainting (passing out)

Heat Cramps
Heavy sweating during intense exercise; and muscle pain or spasms

Sunburn
Painful, red, and warm skin; and blisters on the skin

Heat Rash
Red clusters of small blisters that look like pimples on the skin (usually on the neck, chest, groin, or in elbow creases)

More information: https://www.cdc.gov/disasters/extremeheat/warning.html
Source: Centers for Disease Control

I employ workers who spend most of their day inside air-conditioned vehicles and are not exposed to excessive heat for more than 15 minutes in a 60-minute period. Does this rule apply?

No, under these circumstances, employees would be fully exempt.

Section (3) Access to shade

How does OSHA define shade?

Shade is blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with working air conditioning.

What does "immediately and readily available" mean?

Immediately means "instantly" and readily available means "close at hand."

May I provide my employees with wide-brimmed hats for shade?

While it is a good idea to provide hats for employees, hats do not provide enough shade.

What are some alternatives to providing shade to my employees?

Alternative cooling methods may be used when providing shade is infeasible, such as on the side of a steep slope, or if providing shade creates a greater hazard, such as during extremely windy conditions. Alternative cooling methods include (but are not limited to) evaporative cooling vests, cooling towels, and wraps.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

Section (4) Drinking water

How much water does my employer need to give me per hour?

When the heat index in the work area equals or exceeds 80 degrees Fahrenheit, employers must supply each employee 32 ounces per hour.

Is it acceptable to provide noncaffeinated sports drinks instead of water?

Drinking water packaged as a consumer product and electrolyte-replenishing beverages that do not contain caffeine (for example, sports drinks) are acceptable substitutes, but should not completely replace the required quantities of water.

Do I have to provide my employees the entire quantity of drinking water at the beginning of their shift?

No, as long as there are procedures to supply the employees with drinking water throughout the shift.

May I reimburse my employees if drinking water is purchased?

Yes; drinking water must be provided at no cost to employees.

Section (5) High heat practices

What are the rules for when the heat index is 90 degrees Fahrenheit or more?

When the heat index exceeds 90 degrees, all of the rules for 80 degrees apply, plus:

- Effective communication with a supervisor is required through voice, observation, or electronic means; observation and monitoring of employees for signs and symptoms of heat-related illness
- Ensure that employees are observed for alertness and signs and symptoms of heat illness, and monitored to determine whether medical attention is necessary
- A cool down or rest period of at least 10 minutes is required for every two hours of work
- Develop and implement emergency medical and acclimatization plans

Work/rest schedules

What are the options when developing a work/rest schedule?

(A) Implement a written, employer-specific heat illness prevention work/rest schedule using the minimum rest break durations and intervals in Table 1 (on the next page), that is employer-adjusted to effectively protect employees from heat illness.

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440-5866 (05/23/COM)

Table 1. Minimum employer-specific rest break durations and intervals:

Heat index temperature (°F)	Rest break durations
90 or greater	10 minutes every two hours
100 or greater	15 minutes every hour

These four elements are required to be in an employer's heat illness prevention work/rest schedule:

1. The effect of personal protective equipment (PPE) on the body's ability to retain heat
2. The effect of the type of work clothing on the body's ability to retain heat
3. Relative humidity, whether work activities are indoors or outdoors
4. The intensity of the work being performed

OR

Implement an effective heat illness prevention work/rest schedule based upon recommendations from NIOSH.

OR

Implement a written simplified heat illness prevention work/rest work rest schedule using Table 2 below.

Table 2. Minimum simplified rest break durations and intervals:

Heat index temperature (°F)	Rest break durations
90 or greater	10 minutes every two hours
95 or greater	20 minutes every hour
100 or greater	30 minutes every hour
105 or greater	40 minutes every hour

Note: The Table 2 work/rest schedule is only required during the specified heat index temperatures.

Note: Preventative rest breaks under subsection (5)(e) are only required during the specified heat index temperatures, and may be provided concurrently with any other meal or rest period required by policy, rule or law, if the timing of the preventative rest break coincides with the otherwise required meal or rest period. However, the preventative rest break must be calculated using only the time spent in the shade and when employees are not performing work other than light work such as that performed in an office setting. Except when preventative rest breaks coincide with the existing unpaid meal break, the preventative rest break is a work assignment and must be compensated accordingly. Preventative rest breaks are only required during the time of the shift that the ambient heat index equals or exceeds 90 degrees Fahrenheit.

Oregon OSHA also describes employers' three options for heat illness prevention rest schedules in this fact sheet.

Are heat illness prevention rest breaks required for vehicle salespeople?

It depends on how long they are working in the sun. If they work in the sun when the heat index is equal to or greater than 90 degrees Fahrenheit for more than 15 minutes in a 60-minute period, the answer is yes.

Can vehicle salespeople work during their heat illness prevention rest break?

Yes, if the work is performed in a temperature-controlled environment and they are performing either "rest" or "light" work and this must be done at the employees' discretion. An employer may not require that employees work when they are on their heat illness prevention rest break.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

Are heat illness prevention rest breaks required for those who perform work in an attic?

It depends on how long the work is performed in the attic. Presuming that the attic work takes longer than 15 minutes in a 60-minute period, then heat illness prevention rest breaks would be required. This type of work would not normally be classified as "rest" or "light."

Are heat illness prevention rest breaks required for employees who work outside at summer camps for children when the heat index is equal to or exceeds 90 degrees Fahrenheit?

Oregon OSHA recognizes that these situations are dynamic and that it might not be possible for employees supervising children to take their heat illness prevention rest breaks when the heat index is equal to or greater than 90 degrees Fahrenheit at regular intervals. Employers should attempt to apply engineering and administrative controls to reduce these employees' exposure. Employers should plan for these situations and make provisions for water and shade, when possible. When providing shade is impossible, employers should use alternative cooling methods for these employees.

If an employee is working and the heat index is 90 degrees Fahrenheit or higher, and the employer has to give breaks in the shade, can the employer rotate that employee to work inside for a while (to provide shade and a break from sun and heat), and then rotate the employee back out away from the shade?

No, and this note from the rule below explains why.

Note: The purpose of the heat illness prevention rest breaks is to allow the body to cool down and recover from working when the heat index equals or is greater than 90 degrees Fahrenheit. However, there is nothing that prevents an employer from rotating employees inside where the heat index is less than 80 degrees Fahrenheit.

Can we ask our employees to stretch their muscles or participate in other activities during the rest periods?

No. The purpose of the rest period is to allow employees to rest, cool down, and recover from working in the heat.

Can an employee take a break outside of the designated rest break schedule if they are experiencing symptoms? If that is true, which provision of the rules points to that allowance?

Employees experiencing symptoms of heat-related illness should use the training they received to determine the most appropriate steps, including seeking rest in shade. The employer's emergency medical plan and heat illness prevention plan may provide details on the process to take when employees are experiencing symptoms.

The following rules (OAR 437-002-0156 or OAR 437-004-1131) would relate to the above answer:

(6) Emergency medical plan. The employer's Emergency Medical Plan must address employee exposure to excessive heat, in accordance with OAR 437-002-0161(4). When employers are performing Construction activities, they must also comply with 29 CFR 1926.50. For those employers that fall under Division 7 Forest activities, they must comply with OAR 437-007-0220. These plans must address the types medical situations that employees could encounter, including conditions relating to excessive heat exposure.

Heat Illness Prevention Plan:
(8)(a) How employees will be trained on the hazards of heat exposure and the necessary steps to prevent heat-related illnesses;

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

(8)(b) How to recognize the symptoms of dehydration, and how to respond to suspected heat-related illnesses in others;

(8)(e) How employees will be provided sufficient space to rest in a shaded area or cool climate-controlled area, and where heat-affected employees may cool off and recover when signs and symptoms of heat-related illnesses are recognized;

Supervisor and employee training:

(9)(b) The employer's procedures for complying with the requirements of this standard, including, but not limited to, the employer's responsibility to provide water, heat index information (including the risks to experiencing a heat-related illness), shade, preventative rest breaks, and access to first aid, as well as how employees can exercise their rights under this standard without fear of retaliation;

(9)(f) The importance for employees to immediately report to the employer, directly or through the employee's supervisor, signs and symptoms of heat illness in themselves or in others.

Does Oregon OSHA have the authority to classify a rest break as a "work assignment"?

Yes, Oregon OSHA has the regulatory authority to classify rest breaks as "work assignments."

Our employees work by 'piece rate' and they do not want to take additional rest breaks when the heat index is equal to or greater than 90 degrees Fahrenheit; what are our options?

Employers are required to provide heat illness prevention rest breaks for employees who work by "piece rate."

Can we use one heat illness prevention rest break for a group of our employees and another one for another group of our employees?

Yes, employers may use one option for a group of employees and another option for another group of employees, as long as employees don't switch between groups.

For the Simplified Work/Rest Schedule, does 10 minutes every two hours mean 110 minutes of work and 10 minutes rest, or 120 minutes work and then 10 minutes rest? Likewise, is it 40 minutes work/20 minutes rest, or 60 minutes work, then 20 minutes rest?

10 minutes every two hours means 110 minutes of work and 10 minutes rest; and 20 minutes every hour means 40 minutes work and 20 minutes rest.

Is there a specific top temperature (from natural or work-related heat) that workers should not be in?

It would vary from individual to individual, based on a number of factors (i.e., fitness of the individual, hydration status, medications, etc.).

A heat index of 108 degrees Fahrenheit is specified as a maximum in some peer-reviewed publications, but this is more of a guidance rather than an absolute.

As a general rule, Oregon OSHA does not prohibit work.

Can I use the NIOSH heat stress app if my employer has chosen the NIOSH work/rest schedule?

No, because there are adjustments that are required that are underneath the NIOSH work/rest schedule. As an example, it is 80 degrees with a relative humidity of 50 percent, and employees are working

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

in full sun. Due to working in full sunlight, the notes say add 13 degrees = 93 degrees. The adjustment for relative humidity at 50 percent is 6 + 93 = 99 heat index. IF you were to use the app and enter the temperature and relative humidity, you would only get a heat index of 81, the same as the heat index chart. The NIOSH app does not take into account the effect of sunlight. Heat index values were created for shady, light-wind conditions.

Can an employer just send an employee home without pay to comply with this heat law instead of allowing the person to take the designated breaks?

This is a question for the Oregon Bureau of Labor & Industries.

How would flaggers workload be classified?

Flaggers are performing work at least at the "moderate" level.

Am I required to provide heat illness prevention rest breaks if the heat index is equal to or above 90 degrees Fahrenheit for less than two hours?

No.

If the heat index does not exceed 95 degrees until 4 p.m. and employees are scheduled to get off work at 5 p.m. am I required to furnish heat illness prevention rest breaks?

The answer depends on which work/rest schedule the employer has chosen.

IF the employer has chosen option A (employer-designed work/rest schedule), the answer is "no."

IF the employer has chosen option B (NIOSH), then the answer is "yes"; employers should provide a 15-minute heat illness rest break after every 45 minutes of work when the heat index is 95 degrees Fahrenheit.

IF the employer has chosen option C (simplified work/rest schedule), then the answer is "yes"; employers should provide a 20-minute heat illness rest break after every 40 minutes of work when the heat index is 95 degrees Fahrenheit.

Section (6) Emergency Medical Plan

Are all employers required to develop an Emergency Medical Plan?

Previously, not all employers were required to have an Emergency Medical Plan. However, for the purpose of this rule, all employers in General Industry, Construction, and Forestry are now required to have an Emergency Medical Plan that addresses heat illness prevention.

What are the required elements for an Oregon OSHA Emergency Medical Plan?

The required elements for an Oregon OSHA Emergency Medical Plan may be found below and in the rules here.

(a) An emergency medical plan to ensure the rapid provision of medical services to employees with major illnesses and injuries shall be developed. In such cases, the employer shall determine that the service will be available in an emergency.

(b) If a physician or an ambulance with emergency medical technicians is readily accessible to the place of employment, then the minimum emergency medical plan must contain the emergency telephone number of the ambulance service. The emergency telephone number shall be posted conspicuously at the place of employment.

(c) Employers in areas with a designated 911 telephone number may use the 911 service in lieu of posting the specific ambulance telephone number.

(d) If the place of employment is not in proximity to emergency medical services, then the employer shall

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

have, in addition to the information required in 437-002-0161(4)(a), a definite plan of action to be followed in the event of serious injury to an employee. The plan of action shall consist of the arrangements for:

(A) Communication – two-way radio telephone, or provision for emergency communication to contact the emergency medical services.

(B) Transportation – availability of transportation to a point where an ambulance can be met or to the nearest suitable medical facility. Vehicles provided for this purpose shall be available at all times, shall have right-of-way over all vehicles or equipment under the control of the employer, and shall be equipped so that due consideration can be given to the proper care and comfort of the injured employee.

(C) Qualified medical personnel at destination.

(D) All employees shall be knowledgeable concerning the qualified first aid person(s), the first aid requirements, and emergency medical plan.

Do you have a sample emergency medical plan?

Sample plans are available online but they need to be tailored to the business operations and locations where employees are working. It's important to note: The emergency medical plan was required for some employers prior to the heat illness rules.

Resources:

- Federal OSHA - How to plan for workplace emergencies and evacuations
- Oregon OSHA - Expecting the Unexpected

Section (7) Acclimatization Plan

What are some good resources to learn more about acclimatization?

- CDC NIOSH Heat Stress Acclimatization Plan
- CDC Acclimatizing Workers
- Oregon OSHA's Local Emphasis Program – Preventing Heat-Related Illness

What are the definitions of "acclimated" and "unacclimated"?

Acclimated means that employees are used to working in high-temperature environments, and unacclimated means that employees are not used to working in high-temperature environments.

I own a bank and my tellers work inside. I also sponsor golf tournaments, and my tellers volunteer at the tournaments. What are the expectations regarding acclimatization?

Oregon OSHA recognizes that under this situation, acclimatization would be impossible to achieve. However, the employer should take steps to prevent these employees from suffering a heat-related illness by providing shade, water, increased heat illness prevention rest breaks, and alternative cooling methods such as cooling vests, cooling towels, misters, etc.

As an employer, how do I integrate these items into my acclimatization plan?

A sample acclimatization and rest break plan for heat illness prevention can be found here.

Section (8) Heat Illness Prevention Plan

Are there resources to assist in developing a Heat Illness Prevention Plan?

Yes, here are samples:

- OSHA Heat-Illness Prevention Plan
- Oregon OSHA sample Heat Illness Prevention Plan, also available in Spanish.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

Section (9) Supervisor and employee training

What topics must all employees, whether supervisors or non-supervisory, be trained on annually to prevent heat-related illness?

Prior to being exposed to high heat, all employees must be trained in:

- The environmental and personal risk factors (for example, chronic obstructive pulmonary disease, asthma, kidney disease, obesity, etc.) for heat illness that may limit an individual's tolerance to excessive heat, as well as the added burden of heat load on the body caused by exertion, clothing (refer to Section 5 in Appendix A, Information for Heat Illness Prevention), and personal protective equipment.
- The employer's procedures for complying with the requirements of this standard, including, but not limited to, the employer's responsibility to provide water, heat index information (including the risks to experiencing a heat-related illness), shade, preventative rest breaks, and access to first aid, as well as how employees can exercise their rights under this standard without fear of retaliation.
- The importance of frequent consumption of small quantities of water, up to 32 ounces per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- The concept, importance, and methods of the acclimatization plan pursuant to the employer's procedures under section (8).
- The different types of heat illness, the common signs and symptoms of heat illness, and the appropriate first aid and emergency response to the different types of heat illness, including how heat illness may progress quickly from mild signs and symptoms to a serious and life-threatening condition.
- The importance for employees to immediately report to the employer, directly or through the employee's supervisor, signs and symptoms of heat illness in themselves or in others.
- The effects of nonoccupational factors (e.g., drugs, alcohol, and obesity) on tolerance to occupational heat stress.

Do we have to train our employees when they work in an office environment?

The heat rule applies to people who will be working in the heat, whether indoors or outdoors. It does not apply to workers who work indoors with mechanical ventilation that keeps the indoor heat index below 80 degrees Fahrenheit.

Section (10) Training documentation

What are employers required to do under this section?

Employers must verify compliance with section (9) by preparing and maintaining written or electronic training records that can be provided to Oregon OSHA upon request. Such records must contain the name or identification of each employee trained, the date(s) of the training, and the name of the person who conducted the training. The most recent annual training record for each affected employee must be maintained.

Oregon OSHA expects employers to make necessary changes to work practices in response to such environmental changes so that the required routine ventilation maintenance activities are completed in a timely and appropriate manner. For example, an employer could ensure that such maintenance activities are scheduled for times that the heat is expected to be less intense, such as early morning.

An employer always has the option to prove that such activities are (at times) truly infeasible (e.g., ice storm in winter). In such cases, that determination is left up to the employer to be able to demonstrate infeasibility, and that determination would be reviewed on a case-by-case basis should there be a compliance inspection.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

Miscellaneous

Is there a chart that summarizes the rule requirements?

Yes

Heat index	Rule requirements
Equals or exceeds **80** degrees F	Enough shade must be provided to accommodate those on their heat illness prevention rest and meal breaks
Equals or exceeds **80** degrees F	Cool or cold drinking water must be provided; up to 32 ounces per employee per hour
Equals or exceeds **80** degrees F	Acclimatization begins
Equals or exceeds **80** degrees F	Emergency plans developed/updated to address employee exposure to excessive heat
Equals or exceeds **80** degrees F	Develop and implement an acclimatization plan and procedures in writing. Employers have two options.
Equals or exceeds **80** degrees F	Develop, implement, and maintain an effective heat illness prevention plan in writing.
Equals or exceeds **80** degrees F	Provide heat illness prevention training to all employees, including new employees, supervisory and non-supervisory employees, prior to June 15, 2022.
Equals or exceeds **80** degrees F	Training must be documented.
Equals or exceeds **90** degrees F	Implement high heat practices (i.e., a communication system to identify employees that may be experiencing a heat-related illness; a system that allows designated and other employees to call emergency medical services; and a system for monitoring the indoor heat index).
Equals or exceeds **90** degrees F	Develop and implement a written heat illness prevention rest break schedule; employers must choose from one of three options.

Back to Table of Contents

OSHA | Oregon OSHA
Department of Consumer and Business Services
osha.oregon.gov
440-5866 (05/23/COM)

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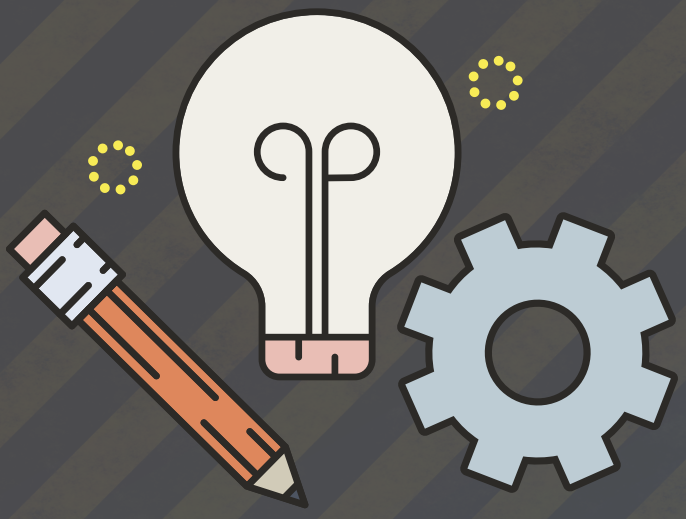
Training Shop

Heat-related illnesses:

Too hot to handle



PRACTICAL TOOLS

Heat-related illnesses: Too hot to handle

Keeping cool when the temperature's not

Heat index

Why does humidity make it feel so much hotter? Because the moisture in the air makes it harder for sweat to evaporate – which makes it harder for the body to cool itself.

That's why it's important to understand the heat index – it uses the temperature and relative humidity to calculate the "real feel" for the temperature.

But watch out – the heat index values are devised for shady, light wind conditions. Working in direct sunlight can increase the heat index values by 15°F.

As the heat index increases, you should take

(Continued on Page 3)

Whether you're working inside or outside, excessive heat levels can cause serious injuries or even death.

What to know

Every year, 30 workers die from heat exhaustion, and thousands more suffer from serious heat-related illnesses.

Most of these illnesses occur when the body loses its ability to cool itself.

Remember OSHA's slogan: "Water. Rest. Shade."

Prevention

The best thing you can do for yourself: Hydrate. You should aim to drink a cup of water every 15 minutes.

In addition:

- Take a break whenever you feel you need it
- Rest in the shade, or air conditioning, if it's available
- Don't try to "keep up" with others
- Gradually acclimate yourself to working in heat for long periods of time
- Avoid drinks with alcohol, caffeine or high amounts of sugar. These may contribute to dehydration
- Wear light, breathable clothing, and
- Use sunscreen, a hat and sunglasses.

(Continued from Page 2)

greater steps to prepare yourself.

Check the forecast each day for the local heat index.

Understanding the index

Here's what you're up against at each level of the heat index:

- Less than 91°F. Risk Level: Low. You should drink water and apply sunscreen.
- 91°F to 103°F. Risk Level: Moderate. Follow the same tips for the lower risk level, but use greater caution.
- 103°F to 115°F. Risk Level: High. Take frequent breaks and use a buddy system.
- Greater than 115°F. Risk Level: Very high to extreme. At this level, you should strictly follow all of the recommended heat illness prevention steps.

What to watch for

Symptoms of heat-related illnesses can vary, but here are some common symptoms to watch out for:

- dizziness
- headache
- nausea
- cramps, and
- excessive sweating.

If you experience any of these, stop working, rest, and drink fluids until you feel better.

If these treatments don't work, bathe or shower in cool water.

Left untreated, these symptoms could lead to something much worse.

In case of emergency

Keep it simple: If you feel bad, get out of the heat and take a break.

If the nearest medical center is more than a few minutes away, someone on site should be trained in first aid.

Know who this person is and how to reach them in an emergency.

Clothing: your first line of defense

One of the worst things you can do while working in the sun is remove your shirt.

Not only do you risk getting sunburn, but you're losing a valuable cooling device: Your clothing absorbs sweat, holds it against your body, and helps keep you cool.

When working outside, wear loose-fitting, light-colored clothing.

Wear a long-sleeved shirt, long pants and a wide-brimmed hat to protect you from the sun and heat.

NAME

SIGNATURE

DATE

Training Shop Quiz

1	OSHA's slogan on preventing heat-related illnesses is "Water. Rest. Shade."	TRUE	FALSE
2	You should drink a cup of water every half hour to stay hydrated.	TRUE	FALSE
3	If you feel dizzy, just drink more water and get back to work – hydration is important, but you also want to keep your blood moving.	TRUE	FALSE
4	You should avoid sugary, caffeinated and alcoholic beverages, as they can lead to dehydration.	TRUE	FALSE
5	When in doubt about how hard you should work in hot weather, you should just try to keep pace with the other workers.	TRUE	FALSE
6	If your muscles are cramping, you may drink a sports beverage or clear juice to help replace electrolytes.	TRUE	FALSE
7	When working in hot weather, it's best to gradually acclimate your body to the temperature; you should gradually work longer shifts.	TRUE	FALSE
8	If medical facilities are only a few minutes away, your employer doesn't need to have someone trained in first aid on site.	TRUE	FALSE
9	About 30 workers die every year from heat exhaustion, and thousands more suffer from heat-related illnesses.	TRUE	FALSE
10	Taking a cool shower or bath is a good way to recover from overheating.	TRUE	FALSE

370 Technology Drive
Malvern, PA 19355
610-727-0515

Quiz Answers

1. **True.** You should drink water regularly, rest whenever you need to, and take breaks in the shade.

2. **False.** As a rule of thumb, you should dink a cup of water every 15 minutes to ward off dehydration.

3. **False.** If you feel dizzy, you should drink water – but you shouldn't continue working. You should rest until you feel better.

4. **True.** Alcohol can lead to dehydration. In addition, caffeine and sugar are believed to contribute to dehydration.

5. **False.** In hot weather, it's best to work at a pace that you feel comfortable at. Moving at someone else's pace may exhaust you.

6. **True.** Sports beverages and clear juices can help replace the water and salt your body sweats out.

7. **True.** If your body isn't used to working in excessive heat, it can wear out faster.

8. **True.** Your employer isn't required to have someone trained in first aid if medical facilities are close by.

9. **True.** On average, heat exhaustion kills 30 workers and hospitalizes thousands more every year.

10. **True.** A cool shower or bath can help cool the injured person and bring down their internal temperature.

Worker Death: OSHA Points Finger at Employer

by **Tom D'Agostino**
June 4, 2024
OSHA
3 MINUTE ENGAGEMENT

SHARE ON

A worker death led to a finding by the Occupational Health and Safety Administration (OSHA) that an employer should pay $177,453 in penalties.

OSHA said the employer, a pallet manufacturer in Wisconsin, committed multiple safety violations.

It added that there have now been five inspections at the same Konz Wood Products plant since 2016, and that it found four serious safety violations there in 2019.

Even worse: One of those four was similar in type to the one that was connected to the fatal accident.

Worker death while working on machine

The deceased employee was working on a stacking machine, which has a metal carriage that moves boards onto pallets for transport. The machine pushes and lowers rows of wood onto pallets.

The employee tried to remove a board that was jammed in the machine. As he did so, the metal carriage moved and hit him. It caused severe crushing injuries that led to his death.

The safety violation: The company did not make sure that the machine was properly locked out so that it would not move while the worker cleared the jam.

Under the law, machinery must be disabled to prevent the release of what OSHA calls “hazardous energy” during servicing and maintenance activities.

OSHA: Do more

“Federal safety procedures protect workers from the dangers of coming in contact with moving machine parts, but when employers fail to train workers to ensure procedures are followed, workers are at risk for serious or fatal injuries,” OSHA Area Director Robert Bonack explained. “Konz Wood Products and Wisconsin’s entire lumber and wood products industry must work to improve employee safety by guarding machines during normal production and locking out and tagging equipment during the maintenance.”

After investigating, OSHA issued the employer two repeat violations for lack of proper lockout/tagout procedures and lack of fall protection when employees work above dangerous machinery.

More about lockout/tagout

Lockout/tagout refers to practices and procedures that are needed to disable machinery and equipment when needed to prevent the release of hazardous energy when service and maintenance activities are being performed.

Here are some of the some of the specific requirements that are in place relating to lockout/tagout procedures:

- Have an energy control program and energy control procedures.
- If equipment can be locked out, use lockout devices on it. Tagout devices can be used instead of lockout devices if they provide equivalent protection.
- Make sure new or overhauled equipment can be locked out.
- If machines cannot be locked out, make sure to have a tagout program.
- Make sure to use proper lockout and tagout devices that identify individual users.
- Make sure only workers who apply lockout/tagout devices can remove them.
- Inspect energy control procedures no less frequently than once per year.
- Provide proper training to employees.

Multiple violations after worker death

OSHA also cited the employer for 15 serious violations relating to lack of point-of-operation and machine guarding on saws and other equipment. In addition, it said there was a lack of fall protection and electrical hazards.

The agency proposed $177,453 in penalties. It also placed the employer into a club that no employer wants to be a member of: the agency’s severe violator enforcement program.

The employer has 15 days to:

- Comply with the citation
- Request an informal conference, or
- Contest the findings before the Occupational Safety and Health Review Commission.

If it’s broke, fix it

No one ever wants to find themselves in violation of safety standards as determined by OSHA.

But this case is a strong reminder that if such a determination is made, employers need to take prompt and effective steps to remedy the dangerous condition and improve workplace safety.

According to the agency, this employer engaged in repeated violations that ultimately led to an employee’s death.

Not Again! OSHA Seeks $262K After Worker Is Badly Hurt

by **Tom D'Agostino**
May 7, 2024
HAZARDS
3 MINUTE ENGAGEMENT

SHARE ON

OSHA has proposed that a Wisconsin baking facility operator pay nearly $263,000 in penalties following its investigation into an injury suffered by an employee at the plant.

The investigation marked the second time since 2019 that the federal safety watchdog agency opened an investigation into potential safety-related issues at Minnesota-based Pan-O-Gold Baking Company's Wisconsin facility.

In the earlier case, the agency concluded that the employer exposed workers to hazards when it did not follow proper lockout/tagout procedures for machines. Workers suffered amputation and laceration injuries, OSHA said. It added that the company's injury rates were much higher than the national average for commercial bakeries.

OSHA cites training, reporting issues

In the new case, OSHA said the employer did not meet its duty to report an injury suffered by an employee who was hurt when a bread pattern forming machine suddenly started running while he was adjusting a sensor.

The agency's press release on the incident did not specify the precise nature of the injuries that the employee suffered, though it described them as "disabling" and "life-altering."

After investigating, OSHA cited the employer for two repeat violations relating to the proper use of lockout/tagout and energy control procedures.

It tacked on another six serious and two other-than-serious violations.

Those other violations related specifically to:

- Lack of proper training of employees
- Lack of adequate machine guarding
- Use of hand protection
- Proper and complete injury reporting
- Reporting of employee hospitalization.

In total, the agency proposed $262,963 in penalties.

OSHA director weighs in

“Pan-O-Gold Baking Company could have prevented this employee from suffering life-altering injuries by implementing required safety procedures to stop the machine from unexpectedly starting up as he tried to adjust the sensor,” OSHA Area Director Chad Greenwood said in the release. “Instead, this worker and his family are now forced to face an uncertain future and the personal and financial struggles that come with suffering disabling injuries and being unable to return to work.”

The company has the right to contest OSHA’s findings and has reportedly said it will do so.

Message to HR: Ensure proper safety training

Two of the violations found by OSHA related to employee training.

First, OSHA said authorized employees did not receive training relating to the recognition of applicable hazardous energy sources as well as the type and magnitude of energy in the workplace and the methods and means needed for energy control and isolation.

Second, it said affected employees did not receive proper instruction related to energy control procedures.

HR pros should step back and look at the big picture when it comes to keeping workers safe on the job by doing their best to create a workplace culture of safety.

Tips from an expert

As workplace safety expert Todd Piett has explained, employers should be proactive in:

- Keeping staff informed about emergency management guidelines
- Providing information about the notification modalities that will be used if a crisis occurs
- Making sure there are smooth transitions relating to safety policies and responsibilities when key personnel leave or new employees arrive.

Piett says it’s important for employers to ask themselves these safety-related questions:

- Are my building security systems up to date?
- Do we have a dedicated safety officer who regularly meets with an executive team?
- Do we have an integrated approach to safety and security as well as a proactive emergency management strategy?
- Are we using up-to-date methods to communicate as needed in an emergency?
- Do we have automated workflow and reporting solutions in place?
- Are we ready to balance emergency response and recovery efforts at once?
- Do we have a plan in place for debriefing if a crisis takes place?

“Safety is not a one-and-done task,” Priett says. “It is an intrinsic part of a company’s DNA.”