Agricultural safety seminars
2025-2026

Training designed for Oregon's agricultural industry

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Conditional exemption from small agriculture employer "random" OSHA inspections

The exemption is available for agricultural employers with 10 or fewer permanent year-round, full-time and part-time employees. For determining the number of employees, exclude members of the agricultural employer's immediate family from the count.

The immediate family is defined as grandparents, parents, spouses, sisters, brothers, daughters, sons, daughters-in-law, sons-in-law, nieces, nephews, grandchildren, foster children, step-parents, step-children, and any blood relative living as a dependent of the core family.

Requirements for the exemption:

- **Accidents:** Within the preceding two-year period, the employer must not have had an accident resulting in death, in-patient hospitalization, or injury resulting in more than three days of lost work **that was the result of a violation of Oregon OSHA rules**.
- **Consultation:** A comprehensive consultation must be completed within the last four years and all problems identified in the report were corrected.
- **Training:** The employer and principal supervisors must annually attend at least four hours of instruction on agricultural safety or health. Attending a comprehensive safety and health consultation done on an agricultural place of employment is also acceptable as training.

The exemption does not include inspections for:

- Agricultural labor housing or field sanitation
- Valid complaints against the employer filed with Oregon OSHA
- Fatalities, catastrophes, and accident investigations

Sources: OAR437-001-0057 May 4, 2015 Oregon OSHA Program Directive: A-214

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Session 1	Stop, lock, and live: Energy control that saves lives
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Session 4	Making the most of safety committee meetings

Presenters

Eric Lloyd is a safety consultant with Oregon Risk Management Solutions, Inc. His exposure to safety and agriculture began at an early age, when he spent summers working on the family ranch in Idaho and watching his father provide training and consulting services to promote ag safety throughout Oregon. Eric earned a degree in criminal justice from Western Oregon University, and served in law enforcement for several years until being drawn back to his roots and joining the family business in 2016.

Wes Koester is a SAIF senior safety management consultant living and working in the Willamette Valley area. He grew up working in his family's farm and nursery business in Riddle, Oregon. Wes graduated from the University of Oregon with a Bachelor of Science degree in psychology. Over the past six years, he's educated farms and agri-business around the state through a variety of technical and practical seminar topics.

Stop, lock, and live: Energy control that saves lives

Energy Control is a safety requirement that ensures machines and equipment are completely shut down and disconnected from their power sources before any maintenance, cleaning, or servicing repairs are performed.

This prevents the unexpected activation, start-up, or release of hazardous energy while employees are performing the needed maintenance, cleaning, or servicing.

It uses the process of Lockout/Tagout to achieve these results.

Oregon OSHA Rule: 1910.147(a)(1)(i)

This standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy, could harm employees. This standard establishes minimum performance requirements for the control of such hazardous energy.

This applies to servicing and maintenance tasks and its objective is to avoid unexpected energization or startup.

Unlike the federal OSHA rules, which do exempt agricultural operations under certain circumstances, Oregon has state-specific rules that apply to ALL employers, including all those in the ag industry. This is one of them.

Identify all the energy sources for the equipment you are working on or around.

Any of these energy sources could accidentally activate and cause serious injury or death to anyone performing maintenance or service work on the farm.

ENERGY TYPES	EXAMPLES
Chemical	Equipment powered by gasoline, propane, diesel, natural gas
Electrical	Electrical motors on modern tractors, combines, augers, conveyers
Gravitational	Grain bins and silos, gravity-fed conveyers and chutes
Hydraulic	Hoses on tractors, harvesters, loaders, backhoes, forklifts
Mechanical	Tillers, spreaders, augers, grinders, mowers, PTO shafts
Pneumatic	Sprayers, seeders, grain movers, and pneumatic gates, doors, and stalls
Thermal	Energy related to heat and steam, dryers, boilers, exhaust

According to OSHA, across all work industries in America, over 120 deaths and well over 50,000 injuries occur each year in the United States are caused by the failure to control un-checked energy in the workplace. These types of injuries and deaths have included burns, cuts, crushes, electrocutions, fractures, lacerations, amputations, and even decapitations.

Avoidable tragedies

A 39-year-old hay press operator was struck and killed by the machine's steel guillotine blade. Near the end of his shift, the plant supervisor had asked him and two other workers to clean the machine for maintenance. They started clearing the machine's main press by pushing a few hay bales on a conveyor toward a covered area that housed a scale and a baling and compression chamber. During normal operation, the conveyor moved hay onto the scale. When the hay reached a preset weight, a steel guillotine blade would slice it before the conveyor moved it to be compressed.

The operator was responsible for locking out the energized machine before cleaning it, but he did not do so. Although the conveyor was stopped, the machine was still energized when he crawled unnoticed into the covered area toward the scale and started to push a bale. As he was lying on the scale, the combined weight of his body and the bale caused the guillotine to activate and strike him, resulting in near decapitation. He died at the scene.

Read the story here: https://www.agdaily.com/insights/2-workers-killed-cleaning-similar-machines-lessons-farm-safety/

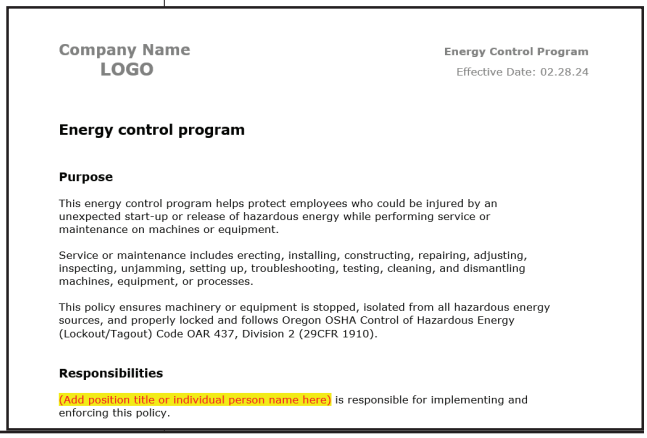
Lockout/Tagout

In simple terms, Lockout/Tagout (LOTO) means turning off and de-energizing the equipment, securing it with a lock, and tagging it with a warning to prevent accidental startup while someone is working on it. This ensures safety by making it physically impossible for the equipment to be turned on during maintenance, servicing, cleaning, or repair.

Simply posting a sign on a breaker box, switch, shut off valve, or control panel does not guarantee that a person won't use those items. A robust Lockout/Tagout system puts locked barriers between people and energizing controls, making it very difficult for a person to mistakenly energize a system that is locked and tagged out.

Do you have an energy control program?

If not, SAIF can help you get started. Go to **saif.com** and search "templates." Among the items listed there will be an Energy Control Lockout Tagout program template in Microsoft Word. Use this template to customize your program.



Company Name
LOGO

Energy Control Program
Effective Date: 02.28.24

Energy control program

Purpose

This energy control program helps protect employees who could be injured by an unexpected start-up or release of hazardous energy while performing service or maintenance on machines or equipment.

Service or maintenance includes erecting, installing, constructing, repairing, adjusting, inspecting, unjamming, setting up, troubleshooting, testing, cleaning, and dismantling machines, equipment, or processes.

This policy ensures machinery or equipment is stopped, isolated from all hazardous energy sources, and properly locked and follows Oregon OSHA Control of Hazardous Energy (Lockout/Tagout) Code OAR 437, Division 2 (29CFR 1910).

Responsibilities

(Add position title or individual person name here) is responsible for implementing and enforcing this policy.

5 Steps to Lockout equipment

Step 1:
Identify the equipment or machinery that needs to be locked out.

Step 2:
Shut off the equipment and make sure that all moving parts have come to a complete stop.

Step 3:
Find the electrical source and disconnect the equipment from the power supply and neutralize all appropriate power at the source.

- Disconnect electricity
- Block movable parts
- Release any stored kinetic energy or stored pressure
- Drain or bleed hydraulic and pneumatic lines
- Lower suspended parts to rest positions

Step 4:
Apply a personal lock to the energy-isolating device. There may be more than one person applying a personal lock.

Step 5:
After ensuring that all workers are aware and in the clear, test the lockout to make sure that it's effective.

Lockout/Tagout kits can be purchased through Amazon, Airgas, Granger, Brandy, and others. This kit was purchased for $210 on Zoro.com.

Individually numbered locks with corresponding keys.

Plug lockout
Secures the electrical plug so that it cannot be used.

This Lockout/Tagout station costs about $110 and includes 6 locks with individual keys, 2 hasps, and 6 tags.

This Lockout/Tagout box is available through Amazon for about $48.

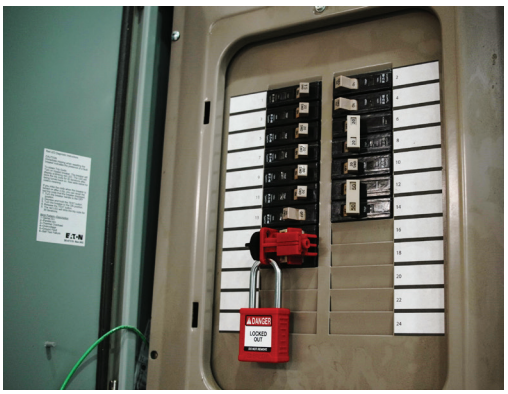
Use the tags to inform people about who is working on the equipment and when the equipment is expected to be operational again.

This is a plug cover in full use. It is closed with a hasp in case multiple people are working on the equipment at the same time. A lock is attached to the hasp. And a tag is attached to the lock with information about who is working on the system and when it is expected to be back online.

An **out of service tag** might look similar to a lockout/tagout tag, but it has an entirely different purpose.

Attach this tag to a piece of equipment that is currently not being used, and you don't have an immediate plan to put it back into use. Train employees to understand that this tag means that they are not to use this equipment under any circumstances until it is fully repaired and the tag has been removed.

Lockout/Tagout examples



Individual circuit breaker

Electrical bar held in the off position

Ball valve

Universal valve

Gate valve handle

Steering wheel

What is machine guarding?

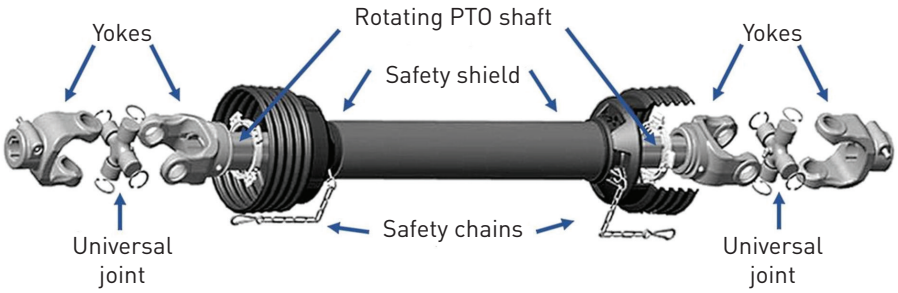
Machine safeguarding is the process of using guards, devices, or other methods to protect workers from hazards associated with operating machinery. Essentially, it involves creating physical barriers or safety mechanisms to prevent contact with dangerous moving parts such as chains, belts, gears, blades, nip points, or other hazards.

This is a list of potential lockout/tagout hazard on a farm. Consider what you may have on your farm that is on this list. What equipment do you have that is not on this list, and what are the potential lockout/tagout hazards associated with them.

Farm equipment lockout/tagout checklist

Equipment type	Energy sources	Lockout/tagout hazards
Tractors	Electrical, hydraulic, PTO shafts	Unexpected startup, hydraulic arm drop, PTO entanglement
Combines and Harvesters	Electrical, mechanical, hydraulic	Cutting blades, conveyors, belt entanglement
Bailers	Mechanical, hydraulic, electrical	Knotters, rollers, hydraulic pinch points
Seeders and Planters	Mechanical, hydraulic, electrical	Chains, augers, seed drives
Sprayers	Electrical, hydraulic, chemical pressure	Pressurized tanks, pumps, chemical exposure
Grain augers and elevators	Electrical, mechanical, hydraulic	Entanglement in screws/belts, pinch points
Feed mixers and grinders	Electrical, mechanical, hydraulic	Rotating blades, augers, belt pinch points
Conveyors	Electrical, mechanical	Caught in chains, belts gears
Silage choppers	Mechanical, hydraulic	Flywheel momentum, blade entanglement
Cotton gins/de-haulers	Electrical, mechanical	Rollers, cutters, electrical shock
Irrigation pumps	Electrical, mechanical	Moving parts, electrical shock
Pivot systems	Electrical, mechanical, hydraulic	High-voltage electricity, gear drives
Manure pumps and separators	Electrical, hydraulic, pressurized fluids	Rotor entanglement, pressurized fluids
Packing line equipment	Electrical, mechanical, hydraulic	Conveyor pinch points, rotating sorters
Hydraulic lifts/cherry pickers	Hydraulic, electrical, mechanical	Falling platforms, hydraulic leks
Pruning/harvesting machines	Mechanical, hydraulic	blade entanglement, hydraulic arm pinch
Fans and ventilation systems	Electrical, mechanical	Belt entanglement, electrical shock
Air compressors	Electrical, stored air pressure	Stored air release, electrical hazards
Welders and grinders	Electrical	Electrical shock, rotating grinders
Hydraulic presses and jacks	Hydraulic, mechanical	Hydraulic failure, crush hazards
Refrigeration units	Electrical, chemical, refrigerant pressure	Refrigerant explosion, electrical shock

Components of a PTO shaft



PTO entanglement is the most dangerous 540 revolutions per minute you'll ever face.

Loose clothing, hair, or body parts come into contact with the rapidly rotating shaft or driveline, pulling the person in, in less than a second.

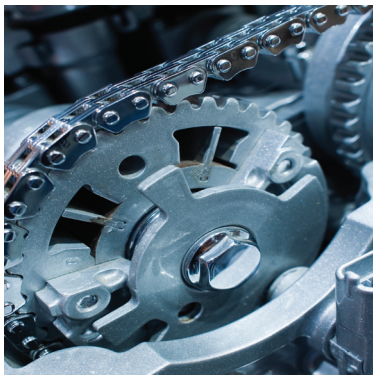
You can help avoid PTO entanglement by staying clear of rotating shafts and never stepping over or reaching across a moving PTO, even if it's guarded. But the very best way is by installing PTO shields and guards that provide a physical barrier between the rotating shaft and the operator.

PTOs are found on tractors, combines, bailers, harvesters, and many more types of equipment. An unguarded PTO shaft is still one of the leading causes of potentially severe injury and death. Studies show that 30 to 50 percent of all PTO guards were either severely damaged or completely missing.

"If the unguarded PTO's still spinning and you're stepping over it, that's not a shortcut. That's a countdown."

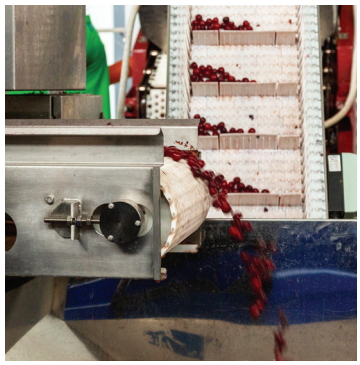
Unguarded chains and belts

- Chains and belts can grab in fractions of a second. All it takes is a loose glove or sleeve.
- Entanglement equals broken bones or amputations
- Common causes: loose clothing, long hair, jewelry, and unguarded drives



Unguarded conveyor pinch points

- Hands, arms, and clothing can be pulled in instantly
- Hazards: rollers, pulleys, blades, sorters
- Common causes: unguarded moving parts, clearing jams, no shut-off device



Crush hazards

- Equipment roll-overs and tip-overs
- Run-overs by tractors, wagons, or loaders
- Crushing between hydraulic arms, buckets, or gates
- Workers pinned between equipment and fixed objects

Electric shock

- Damaged extension cords or faulty tool wiring
- Improper grounding or bypassed fuses
- Wet conditions increasing risk
- Overhead power lines and the contact of moving equipment
  - Always locate overhead lines before starting work
  - Identify any overhead power lines that may be hidden by branches of trees or tall shrubs
  - Maintain safe clearance of overhead power lines with tall machinery

Fire code on the farm

What might we be walking by every day that can damage our equipment, cost us our buildings, and put ourselves and our employees in harms way? In this segment we'll be discussing fire safety regulations that effect our farms, and some of the common hazards and violations that we might be missing.

Fire marshals may have separate rule books, fee structures, and approaches to enforcement, but one thing that's common between them and OSHA is that when it comes to safety related to fire, electrical, lighting, buildings, emergency egress, etc, they're both working off of the rules and codes established by the National Fire Protection Association (NFPA), a global, non-profit organization. Established in 1894, the NFPA develops and publishes consensus-based fire safety codes and standards to reduce death, injury, and property loss from fire and related electrical and building hazards. It provides knowledge, education, professional development, research, and advocacy to promote safety and preparedness in communities worldwide.

One of the original purposes was to bring together fire insurance underwriters, fire marshal's offices, municipal fire departments, and other stakeholders to develop codes and standards to reduce fire hazards. Over time, the NFPA expanded its scope beyond just fire to broader life safety, including electrical safety, building systems, and more. NFPA develops hundreds of codes, standards, and guidelines used globally for safety in buildings, installations, maintenance, etc.

Fee structure and citation potential

Fee structures vary from department to department. For example, the Marion County Fire District in the Salem area charges $120 for the third and all subsequent fire re-inspections if violations aren't corrected, while Mid-Columbia Fire and Rescue in The Dalles area charges $20 for the second re-inspection and $50 for the third and all subsequent fire inspections. Consult with your local jurisdiction to learn the exact fee structure in your area. Comparatively, you could see citations in the thousands or tens of thousands of dollars from OSHA.

Most jurisdictions are willing to work with you on these items. They are more concerned with education and addressing the hazards than writing tickets, especially if you require a third-party person to correct certain deficiencies, such as emergency lighting, fire alarm systems, sprinkler systems, etc.

Fire code is based on building occupancy type. How big is the building? How many people are in it? What are they doing there? Is it residential or commercial?

The **13** most common fire code violations

Find more information about fire codes online:
https://codes.iccsafe.org/content/ORFC2022P1/preface

Extension cords

These are for temporary use only.

603.6 Extension cords.
Extension cords shall not be a substitute for permanent wiring and shall be *listed* and *labeled* in accordance with UL 817. Extension cords shall not be affixed to structures extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances. Extension cords marked for indoor use shall not be used outdoors

Inappropriate use and overloading of power strips

"Daisy-chaining" surge protectors is dangerous and so is exceeding their maximum load.

603.5.2 Application and use.
Relocatable power taps and current taps shall be directly connected to a permanently installed receptacle.

Exceptions:

1. Where *approved* for use in a Group A occupancy or in a meeting room in a Group B occupancy, not more than five relocatable power taps shall be permitted to be connected together or connected to an extension cord for temporary use to supply power to electronic equipment.
2. Current taps and relocatable power taps shall not be required to connect directly to a permanently installed receptacle outlet where used for 90 days or less for the purpose of testing the performance of such devices.

603.5.3 Installation.
Relocatable power tap cords shall not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to environmental or physical damage.

Blocked electrical panels, extinguishers, arm pull stations

Emergency access should always be available for these crucial items.

603.4 Working space and clearances.

Working space around electrical equipment shall be provided in accordance with Section 110.26 of NFPA 70 for electrical equipment rated 1,000 volts or less and Section 110.32 of NFPA 70 for electrical equipment rated over 1,000 volts. The minimum required working space shall be not less than 30 inches (762 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height in front of electrical service equipment. Where the electrical service equipment is wider than 30 inches (762 mm), the minimum working space shall be not less than the width of the equipment. Storage of materials shall not be located within the designated work space.

Means of egress issues

Don't block the exit.

[BE] 1010.2 Door operations.

Except as specifically permitted by this section, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

[BE] 1010.2.1 Unlatching.

The unlatching of any door or leaf for egress shall require not more than one motion in a single linear or rotational direction to release all latching and all unlocking devices.

Exceptions:

1. Places of detention or restraint.
2. Where manually operated bolt locks are permitted by Section 1010.2.5
3. Doors with automatic flush bolts are permitted by Section 1010.2.4, Item 4.
4. Doors from individual *dwelling units* are *sleeping units* of Group R occupancies as permitted by Section 1010.2.4, Item 5.

[BE] 1010.2.2 Hardware.

Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11 of the *International Building Code* shall not require tight grasping, tight pinching or twisting of the wrist to operate.

The incipient stage of a fire is the earliest phase of fire development — the point at which the fire has just started and is still **small, contained, and controllable** without the need for protective gear or complex suppression systems. This is the stage we want to catch fires at if they're going to happen, which is why it's so important that we maintain clear access to things we might need to get to in a hurry in the event of a fire.

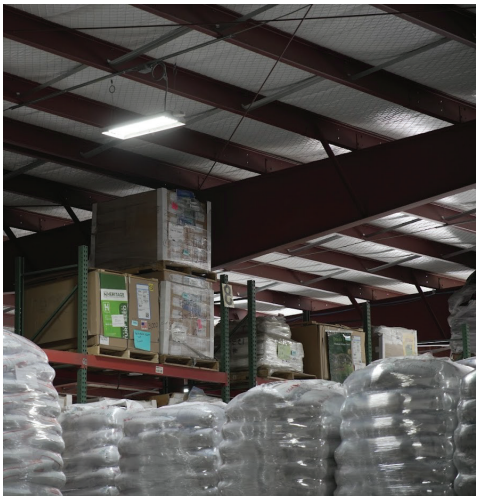
Clear space around the fire suppression system

Don't block the sprinkler heads.

315.3.1 Ceiling clearance.
Storage shall be maintained 2 feet (610 mm) or more below the ceiling in nonsprinklered areas of buildings or not less than 18 inches (457 mm) below sprinkler head deflectors in sprinklered areas of buildings.

Exceptions:

1. The 2-foot (610 mm) ceiling clearance is not required for storage along walls in nonspinklered areas of buildings.
2. The 18-inch (457 mm) ceiling clearance is not required for storage along walls in areas of buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.



Proper pallet stack storage

When pallets catch on fire, the fire can spread quickly.

315.7.1 Storage beneath overhead projections from buildings.
Where buildings are equipped throughout with an *automatic sprinkler system*, the outdoor storage of pallets under eaves, canopies or other projections or overhangs are prohibited except where automatic sprinklers are installed under such eaves, canopies or other projection or overhangs.

315.7.3 Distance to lot line.
Pallet storage shall not be located within 10 feet (3048 mm) of a lot line.

315.7.3 Storage height.
Pallet storage shall not exceed 20 feet (6096 mm) in height.

315.7.5 Pallet types.
Pallets shall be all wood, with slatted or solid top or bottom, with metal fasteners, or shall be plastic or composite pallets, listed and labeled in accordance with UL 2335 or FM 4996. Plastic pallets shall be both solid and gridded deck, independent of the pallet manufacturing process, type of resin used in fabrication or geometry of the pallet.

TABLE 315.7.6(1)
SEPARATION DISTANCE BETWEEN WOOD PALLET STACKS AND BUILDINGS

WALL CONSTRUCTION	OPENING TYPE	WOOD PALLET SEPARATION DISTANCE (feet)		
		≤ 50 Pallets	51 to 200 Pallets	>200 Pallets
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	2	5	20
Masonry	Fire-rated glazing	5	10	20
Masonry	Plain glass with open sprinklers	5	10	20
Noncombustible	None	5	10	20
Wood with open sprinklers	--	5	10	20
Wood	None	15	30	90
Any	Plain glass	15	30	90

TABLE 315.7.6(2)
SEPARATION DISTANCE BETWEEN PLASTIC PALLET STACKS AND BUILDINGS

WALL CONSTRUCTION	OPENING TYPE	PLASTIC PALLET SEPARATION DISTANCE (feet)		
		≤ 50 Pallets	51 to 200 Pallets	>200 Pallets
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	10	20	50
Masonry	Fire-rated glazing	15	40	100
Masonry	Plain glass with open sprinklers	15	40	100
Noncombustible	None	15	40	100
Wood with open sprinklers	--	15	40	100
Wood	None	30	80	150
Any	Plain glass	30	80	150

TABLE 315.7.6(3)
SEPARATION FROM OTHER PALLET PILES AND ON-SITE STORAGE (WOOD PALLETS)

	WOOD PALLET SEPARATION DISTANCE (feet)		
	≤ 50 Pallets	51 to 200 Pallets	>200 Pallets
Between pallet piles	7.5	15	45
Other on-site storage	7.5	15	45

Space heaters

Unplug them when not in use. Plug them directly into the wall. Don't plug space heaters into surge protectors. Keep them 3 feet away from combustible materials.

603.9 Portable, electric space heaters.
Where not prohibited by other sections of this code, portable, electric space heaters shall be permitted to be used in all occupancies in accordance with Sections 603.9.1 through 603.9.5.

603.9.1 Listed and labeled.
Only *listed* and *labeled* portable, electric space heaters shall be used.

603.9.2 Power supply.
Portable electric space heaters shall be plugged directly into *approved* receptacle.

903.9.3 Extension cords.
Portable, electric space heaters shall not be plugged into extension cords.

603.9.4 Prohibited areas.
Portable, electric space heaters shall not be operated within 3 fee (914 mm) of any combustible materials. Portable, electric space heaters shall be operated only in locations for which they are *listed*.

Egress lighting maintenance

Test your emergency lighting regularly.

1032.10.1 Activation test.
Emergency lighting equipment shall be tested monthly for a duration of not less than 30 seconds. The test shall be performed manually or by an automated self-diagnostic routine. Where testing is performed by self-testing and self-diagnostics, a visual inspection of the emergency lighting equipment shall be conducted monthly to identify any equipment displaying a trouble indicator or that has become damaged or otherwise impaired.

1032.10.2 Power test.
Battery-powered emergency lighting equipment shall be tested annually by operating the equipment on battery power for not less than 90 minutes.

Alarm and sprinkler system maintenance

Inspect, service, maintain, and test your alarm and sprinkler systems regularly.

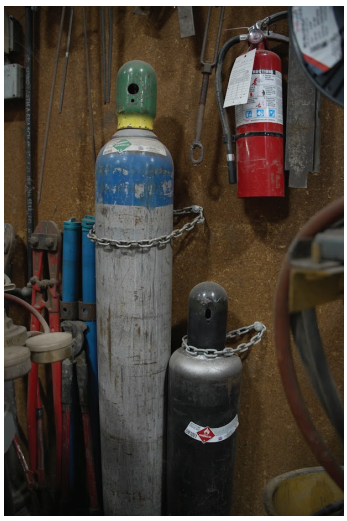
901.6 Inspection, testing, and maintenance.

Fire protection and life safety systems shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. Non-required fire protection and life safety systems and equipment shall be inspected, tested and maintained or removed in accordance with Section 901.8 Single- and multiple-station smoke alarms and carbon monoxide alarms installing I Group R-1 and R-2 occupancies shall also be in accordance with NFPA 72, ORS 90.325 and ORS 479.295.

Properly secure compressed gas cylinders

Not only do you need to make sure gas cylinders don't fall over, some cylinders contain substances that don't play nice with each other. For example oxygen and flammables need to be stored 20 feet away from each other or with a fire wall between them.

5304.1 Upright storage.



Compressed gas containers, cylinders and tanks, except those designed for use in a horizontal position, and all compressed gas containers, cylinders and tanks containing nonliquefied gases, shall be stored in an upright position with the valve end up. An upright position shall include conditions where the container, cylinder or tank axis is inclined as much as 45 degrees (0.80 rad) from the vertical.

Exceptions:

1. *Compressed* gas containers with water volume less than 1.3 gallons (5 L) are allowed to be stored in a horizontal position.
2. Cylinders, containers and tanks containing nonflammable gases, or cylinders, containers and tanks containing nonliquefied flammable gases that have been secured to a pallet for transportation purposes.

5330.5.3 Securing compressed gas containers, cylinders and tanks.
Compressed gas containers, cylinders and tanks shall be secured to prevent falling caused by contact, vibration or seismic activity. Securing of compressed gas containers, cylinders and tanks shall be by one of the following methods:

1. Securing containers, cylinders and tanks to a fixed object with one or more restraints.
2. Securing containers, cylinders and tanks on a cart or other mobile device designed for the movement of *compressed* gas containers, cylinders and tanks.
3. Nesting of *compressed* gas containers, cylinders and tanks at container filing or servicing facilities or in sellers' warehouses not open to the public. Nesting shall be allowed provided that the nested containers, cylinders and tanks, if dislodged, do not obstruct the required means of egress.
4. Securing of *compressed* gas containers, cylinders and tanks to or within a rack, framework, cabinet or similar assembly designed for such use.

Exception: *Compressed* gas containers, cylinders and tanks in the process of examination, filling, transport or servicing.

Fire extinguishers

The size, type, mounting location, and position of portable fire extinguishers matters.

906.5 Conspicuous location.
Portable fire extinguishers shall be located in conspicuous locations where they will have *ready access* and be immediately available for use. These locations shall be along normal paths of travel, unless the *fire code official* determines that the hazard posed indicates the need for placement away from normal paths of travel.

906.6 Unobstructed and unobscured.
Portable fire extinguishers shall not be obstructed or obscured from view. In rooms or areas in which visual obstruction cannot be completely avoided, means shall be provided to indicate the locations of extinguishers.

906.7 Hangers and brackets.
Hand-held portable fire extinguishers, not housed in cabinets, shall be installed on the hangers or brackets supplies. Hangers or brackets shall be securely anchored to the mounting surface in accordance with the manufacturer's instructions.

Fire department access

Don't block fire hydrants, water draw points, or emergency ponds. And make sure firefighters have clear access to the property.

507.5.4 Obstruction.
Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred to hindered from gaining immediate access to fire protection equipment or fire hydrants.

Keep a log and report

Log and report all of your efforts to remain in compliance with NFPA Code. It is increasingly common for businesses, farms, and other commercial operations to be legally required to report to central databases, accessible to first responders, when we complete required items like fire extinguisher service, alarm system maintenance, emergency lighting test, etc. This allows fire marshals to know when businesses in their jurisdiction that are out of compliance and ensure that everyone is doing what they're supposed to be doing.

Services like **The Compliance Engine** and other software tools can be adopted by fire districts. These tools assist in record keeping for required extinguisher and sprinkler maintenance. Extinguisher techs have seen an increase in requests to log the extinguisher maintenance and alarm and sprinkler system techs have reported the same. But if those reports are not submitted by service providers as requested, the liability and unwanted attention can potentially fall back on the property owner.

The **Community Right To Know** program operated by the Office of the Oregon State Fire Marshals, is requiring certain businesses to annually report certain quantities of hazardous materials into an online database so our neighbors are aware of potential hazards, and so that our first responders can be aware of what they're getting themselves into if they come out to a structure fire on a farm with a spray shed full of pesticides.

Breath easy: Have the right respiratory program on your farm

The current OSHA respiratory protection rules state:

> "When respirators are necessary to protect the health of workers or when you require workers to wear them, you must have an effective, written respiratory protection program, managed by a knowledgeable person, with procedures specific to your work site."

Many organizations fail to comply fully with this rule. It is often reported in the OSHA top 10 most cited standards. Some types of respiratory protection citations were due to farms not performing respirator fit testing, not having employees complete the necessary medical evaluations for respirator use, or not having the required employee respirator training completed. Citations are also being given when workers were not properly cleaning or storing their respirators, and when businesses do not having the required written respiratory protection program.

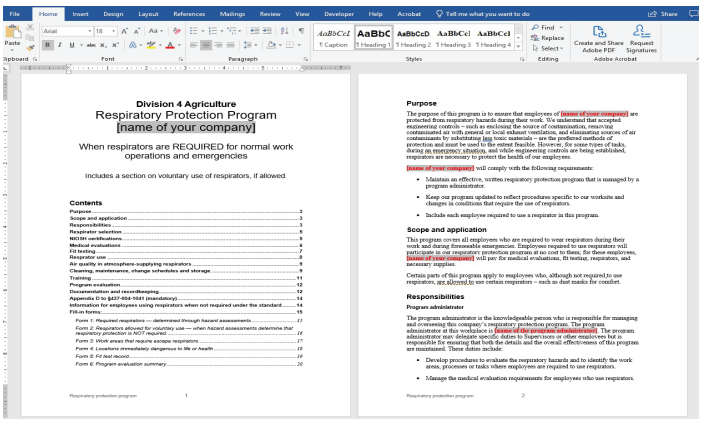
https://osha.oregon.gov/OSHA-Pubs/factsheets/fs51.pdf

How big does the Respiratory Program need to be?

The thickness and size of the written program is not what's important here, but rather, does it contain all the necessary information that OSHA requires for the respiratory protection program?

If you need a written Respiratory Protection Program, you can find a customizable template online.

https://osha.oregon.gov/OSHAPubs/pubform/required-use-program.docx



Program administrator

- The program administrator must be a "knowledgeable person."
- Has the appropriate training, knowledge, and experience with respirators
- Must be able to both oversee the activities of those who wear respirators and the overall effectiveness of the program

Determine your hazards

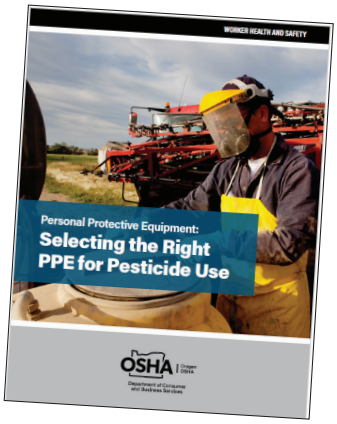
- What jobs on your farm might need respiratory protection?
- What chemicals are you using on the farm and what do their SDS sheets tell you about respiratory protection requirements?

Personal Protective Equipment (PPE)

- What PPE is needed for the jobs performed on the farm?
- Does the PPE being used actually fit the people wearing it?

Choose the right respirator

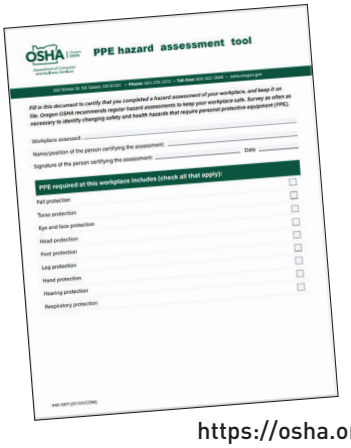
Complete the OSHA-required PPE Hazard Assessment Tool for each task on the farm. This step-by-step process will help you determine the necessary and required PPE for each task.



https://osha.oregon.gov/OSHAPubs/1018.pdf

Respirator options include:

Powered air-purifying respirators (PAPR) - commonly used while spraying orchards. This is a full-body suit with a filtration blower that provides cool, purified air delivered to the helmet. It is powered by a battery pack or a 12-volt cigarette-lighter cord.



https://osha.oregon.gov/OSHAPubs/checklists/5871.pdf

Half-face respirator that covers the mouth and chin. It protects against dust, chemicals, pesticide, vapors, and other airborne contaminants.

Full-face respirator provides protection for the whole face including the eyes, nose, and mouth, eliminating the need for separate safety glasses or goggles.

A **single strap dust-mask** offers a low amount of protection and is primarily used to just filter dust from the air. In contrast, an **N95 dust-mask or mist-mask facepiece** respirator has NIOSH markings and is NIOSH-approved to filter out various particulates and chemicals from the air. The **N95 filtering facepiece respirator** has a tighter seal and dual straps to keep the mask firmly sealed. They're lightweight, fully disposable, and should be replaced once they become dirty, damaged, or difficult to breathe through.

Note: A KN95 mask offers significantly less protection than the N95 mask. They should be used like a dust mask.

Types of filters and cartridges:

Particulate filters protect against airborne dust, mists, and visible fumes, aerosols, smoke, mold, and bacteria. If you can see it, this will filter it out.

Chemical cartridges filter out gases, vapors, and fumes. These are especially good at filtering out what you can't see.

Combined cartridges filter all of the above - both particulates and chemicals, gases, and vapors.

Gas and vapor cartridges are color coded based on the chemical they protect against. Each manufacturer has a slightly different color coding system, so be sure to pay close attention. For example, this is the color coding system that 3M uses.

Color coding for 3M™ chemical cartridges

6001	**Organic vapor**	**Black**
6002	**Acid gases**	**White**
6003	**Organic vapor/Acid gases**	**Yellow**
6004	**Ammonia/Methylamine**	**Green**
6005	**Formaldehyde/Organic vapor**	**Olive/black**
6006	**Multi-gas/Vapor**	**Olive**
6009	**Mercury vapor/Chlorine gas**	**Orange**

What do the letters and numbers on the respirators mean?

N – Not resistant to oil

R – Somewhat Resistant to oil

P – Oil-Proof (strongly resistant to oil)

P95 respirators remove at least 95% of airborne particles with a size 0.3 microns.

P99 respirators remove at least 99% of airborne particles.

P100 respirators remove at least 99.97% of airborne particles.

Filtering out the small stuff

Respirators filter out particles that are about 1/3 of a micron size or larger, but how small is that?

1 micron = 1/26,000 of an inch

1/3 of a micron is 1/78,000 of an inch

The human eye can't see items smaller than 50 to 60 microns in size. So, the stuff it's filtering out is smaller than what the human eye can see. If we see it as smoke or a spray, it can literally be 1,000's of particles all glued together, and yet it's still filtering out even smaller individual particles that we can't see.

For example, individual mold spores range between 10 to 30 microns in size. Most fertilizer dust averages 10 to 100 microns in size. Asbestos fibers range from about 1 to 90 microns in size. They're so small that two million asbestos fibers can fit on the head of a sewing pin and yet, P95 filters are perfect for all three of these examples because the P95 filter can filter out items that are 1/3 of a micron in size.

Medical evaluations and fit testing

Oregon OSHA requires that a medical evaluation must first be completed before someone can get fit tested and cleared to use a respirator. The respiratory protection standard specifically states, "**The employer** shall provide a medical evaluation to determine that the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace."

Each employee needs to complete a Medical Evaluation Questionnaire and have it approved by a medical professional. The medical evaluation cost must be paid by the employer, not the employee. Respirators make it harder to breathe, so a person who has asthma, allergies, pulmonary disease, high blood pressure, certain heart disorders, claustrophobia, or if they smoke, may not be medically cleared nor approved to wear a respirator.

Generally, within a few days, the doctor will review the answers on the Medical Questionnaire and determine if the respirator user can safely wear a respirator for the work that they will be doing.

They'll be cleared to wear a half-face respirator, a full-face respirator, or cleared for both, or not cleared for either half-face nor full-face respirator.

HIPAA requires that the employer should never see the completed Medical Questionnaire with the employee's completed medical answers because this is private medical information.

Once the employee's use of the respirator has been approved by the medical professional, the next step is the Respirator Fit-testing process.

There are two main ways to do a fit test on a respirator user: the 'Qualitative' way and the 'Quantitative' way...

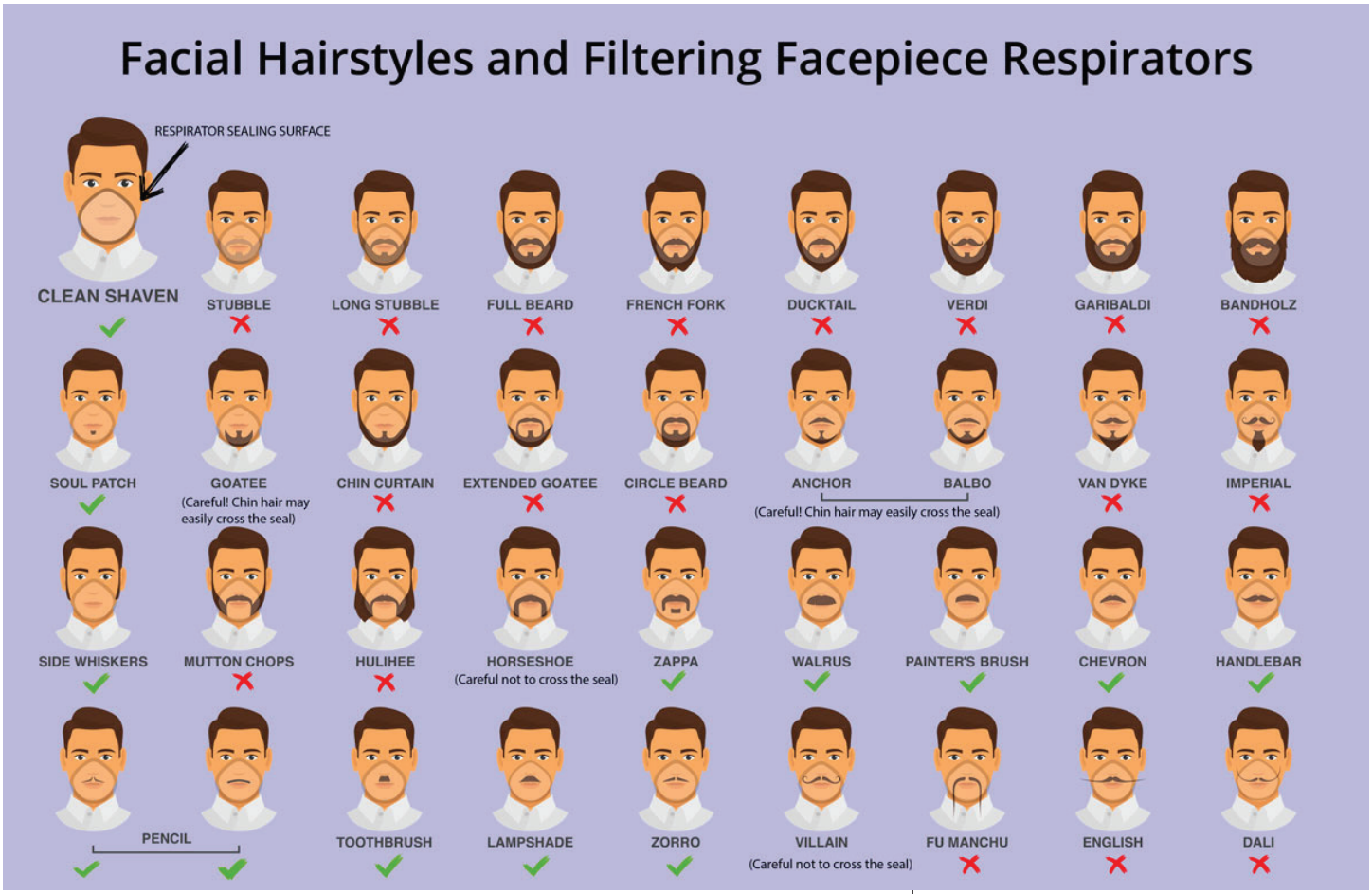
The Quantitative way is done by a fairly expensive machine and oftentimes in a medical office.

The Qualitative way is performed by one of four different ways that utilizes the senses of taste and smell. The employee puts on their respirator and we verify that it's appropriately tight against the face. Too tight digs into their face causing irritation and discomfort. Too loose could cause leakage and vapors or gases could seep into the face mask and be breathed in without first going through the filters.

Stannic chloride (irritant smoke) is dispensed near the respirator. The person is asked to go through various maneuvers including jogging in place, turning their head side-to-side, talking to us to move their facial muscles, and more. If the respirator isn't fitting properly, the person will cough. If the smoke is not detected, the respirator fits.

Fit testing is also required annually, or when the type of respirator changes, or when there are significant changes in weight or facial features.

If you have the right equipment and the right training, anyone can perform the fit testing procedures.



Facial hair can get in the way of having a tight-fitting facepiece respirator, so a poor seal is made between the face and the respirator which can cause leakage. Doing this can cause the person to fail the fit test.

A person with a beard could use a PAPR which is not a tight-fitting respirator, so it does not need to be fit tested.

Respirator care

N95 and dust masks are disposable and often single use items.

Half face respirators must be cleaned, inspected, and maintained regularly. Cleaning is especially important in sweaty or dusty areas because the filters can clog up quicker and the actual respirator can grow bacteria in them. Clean the respirator in warm, soapy water using something gentle like Dawn dish soap which is strong enough to remove any oil and debris but gentle enough to minimize skin irritations. Then, allow the respirator to thoroughly dry before storing or using it, to avoid any mold growth. For a quick cleaning, use baby wipes without alcohol.

Respirator storage

Store respirators in a clean place free from contamination, dust, sunlight, extreme temperatures, and excess moisture. A large, self-sealing plastic bag or plastic container (like plastic shoebox tubs) are ideal for storing respirators.

Put your name on your plastic container as well, so there's no confusion as to whose respirator belongs to who.

Separate the filters from the respirators – and bag the filters separately. Why should we do that? So, the contamination from the dirty filters doesn't get into the clean mask of our respirator.

Respirator training

Train employees annually to protect themselves from respiratory hazards.

They must be able to demonstrate skills such as these:

- How to inspect, clean, and properly store respirators
- How to identify and choose the correct types of filter or cartridge for their use
- How to change filters, cartridges, or canisters, etc.

Voluntary use of respirators

If you determine, by evaluating the conditions at your workplace, that respirators are not required for your employees for use on your farm, you can still provide filtering facepieces such as the particulate respirators like the white dust masks and even the KN95 for dust or wildfire smoke for the comfort of your employees.

You must have each voluntary respirator user sign the Appendix D form and keep a copy of it on record at your farm.

The Appendix D form is a 1-page document that makes it clear to the users that they are wearing the respirators voluntarily.

If you allow employees to voluntarily use any tight-fitting respirator including ones that they brought from home, you have other responsibilities. In addition to providing the Appendix D information to each voluntary user and ensuring that the masks are kept in a sanitary condition, you must also provide an initial medical evaluation to ensure that the employees are able to use these respirators without adverse health effects.

You are not required to provide these voluntary users with the actual respirators, training, or fit testing.

Respiratory program evaluation

Annual evaluations are recommended. Review your program by observing how employees are using their respirators.

Periodically review the following:

- Are respirators still being used properly?
- Do the respirators still fit?
- Are they being used, maintained, cleaned, and stored correctly?
- Should the program be changed or updated?

Annual requirements include:

- Annual review of respiratory program
- Annual refresher training
- Fit testing

Making the most of safety committee meetings

OSHA requirement
"If you are an employer in Oregon, your business must have a safety committee or hold safety meetings - unless you are the sole owner and the only employee of a corporation."

If we're going to take the time to pull everybody together, why not use the opportunity to:

- Perform thorough and detailed incident analysis of any injuries or close calls we've had on the farm
- Keep track of ongoing safety issues that we know we need to get tackled
- Conduct risk assessment for upcoming tasks
- Give our employees an opportunity to provide feedback on any safety concerns they might have on the farm

Here's document from Oregon OSHA that can help you out:
osha.oregon.gov/OSHAPubs/4908.pdf

The first decision you'll need to make is, are you going to hold "safety meetings" or form a "safety committee."

These two programs are similar, and in a lot of ways interchangeable. However, in the eyes of OSHA, they're two separate programs with some unique advantages and requirements. Some farms are eligible for either program, and some are required to form a formal safety committee. The difference is based on your number of employees. This diagram from Oregon OSHA can help you make that determination.

IF:	You can have a safety committee	You can have safety meetings
You have 10 or fewer workers at a location.	Yes	Yes
You have more than 10 workers at a location.	Yes	No
You have satellite or auxiliary worksites with 10 or fewer workers at each location.	Yes	Yes

If your farm is eligible for informal safety meetings, that decreases some documentation requirements. However, just because you are eligible to conduct informal safety meetings, it may not be the best option.

Safety meetings are required to be held 12 months out of the year, and are required to be attended by all employees. Which means, for that period of time, its full-stop on the farm. Perhaps not a big deal in January, but maybe a lot of pressure in the middle of harvest.

If you elect to hold formal safety committee meetings, there are some advantages. First off, the committee members are intended to be representatives of the other employees on the farm, meaning not all employees are required to attend.

Here is another excerpt from the Oregon OSHA document which says that if you have fewer than 20 employees, your safety committee can consist of as few as two people.

Of course, you can always have more people on the committee, and it can vary from month to month as long as you have one representative of management and one representative of staff.

There is another advantage to having a safety committee. In addition to the monthly meetings, each of our farms is also obligated to conduct quarterly safety inspections, where we walk around our facilities and look for safety hazards and OSHA compliance. When you have a safety committee, they can incorporate the quarterly inspection as part of their monthly meetings.

That's much more efficient than holding 12-month-a-year, all-staff informal safety meetings, AND the required quarterly inspections on top of it.

But when we have a formal safety committee on our farm, in a given quarter we'll have two months of the year where we do a sit-down meeting, and one month where instead of that meeting the safety committee conducts that quarterly inspection, and we can do them in any order within that given quarter.

So, in second quarter, we might do a committee meeting in April, a committee meeting in May, and an inspection instead of a meeting in June.

As we start third quarter, if July is a busy month where another inspection is a better use of our time, we can do that first, and then have sit down meetings in August and September.

How many members does a safety committee need?

Membership depends on how many workers you have:

- **Twenty or fewer workers:** The committee must have at least two members.
- **More than 20 workers:** The committee must have at least four members.

> Members should represent the major activities of your business.

Find more on **saif.com >** Safety and health **>** Topics **>** Be a leader **>** Safety committees and meetings.

The documentation requirements for this strategy is a little more strenuous. Instead of a half-sheet note pad, we'll need to have some more detailed accounting of what was brought up and what the discussion consisted of. For example, it might say: Joe reminded the group that the farm is due for annual tractor safety refresher training. Steve will conduct the training during next month's all staff lunch.

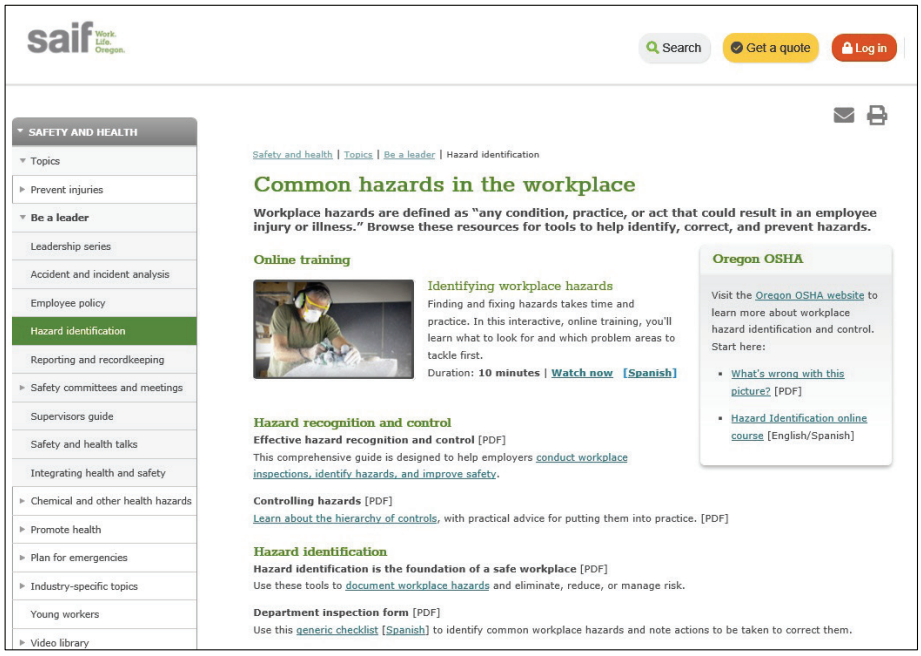
These minutes can serve as an easy running to-do list of safety items to tackle around the farm from month to month, and also provide great documentation of the things we're doing to keep our employees safe if we ever find ourselves being inspected by OSHA. Remember, when it comes to OSHA, if its not written down, it didn't happen.

Training requirements:

- Purpose of safety committees
- Incident analysis
- Hazard identification

SAIF has developed quite a bit of training material and other resources on the topic that can be found here.

https://www.saif.com/safety-and-health/topics/be-a-leader/hazard-identification.html



Incident/Accident Analysis

saif

Company name: _____

Employee: _____ Department: _____ Supervisor: _____

Date and time of incident: _____ (mm/dd/yy hh:mm tt) Date and time reported: _____ (mm/dd/yy hh:mm tt) Incident location: _____

Witnesses: _____

Describe incident completely.

Identify system problems that contributed to the incident/accident:

System factors

Management

Consider:
Policy enforcement
Hazard recognition
Accountability
Supervisor training
Corrective action
Production priority
Proper resources
Job safety training
Hiring practices
Maintenance
Adequate staffing
Safety observations

Management systems

Employee systems

Employee

Consider:
Procedures followed
Shortcuts taken
Appropriately trained
Experience with the task
Physically able to do the work
PPE used
Stressful conditions
Safety attitude

Equipment

Consider:
Proper tool selection
Tool availability
Maintenance
Visual warnings
Guarding

Equipment systems

Environment systems

Environment

Consider:
Plant layout
Chemicals used
Temperature
Noise
Radiation
Weather
Terrain
Vibration
Ergonomics
Lighting
Ventilation
Housekeeping
Biological

System factors

Consider:	Corrective actions/best practices:	Who will implement?	By when?	Date done.
Elimination/substitution Engineering controls Administrative controls Personal protective equipment (PPE)				

Person(s) conducting analysis: _____ Date: _____

Copy to: Safety committee, management, owner or president

Conducting an incident/accident analysis

All workplace accidents, incidents, close calls, and near-misses should be promptly analyzed and corrected, regardless of severity.

This incident/accident analysis form should be completed by the immediate supervisor, with assistance from managers, safety committee members, safety coordinator, or analysis team as needed.

The form explores four organizational systems: management, employee, equipment, and environment (MEEE). Prompts alongside each box are designed to encourage open dialogue and communication about any factors, however minor, that may have contributed to the incident. The intent is to discover system failures so they can be corrected, and future incidents and accidents can be prevented.

There are four steps to this analysis: fact gathering, system analysis, corrective actions, and monitoring. (You may need additional pages to record your findings.)

Step 1: Fact gathering

For each of the four systems (MEEE), record any facts that contributed to the incident. (Some items may fall into more than one category.) Ask open-ended questions such as: How did this happen? Tell me what you and others were doing? What tools were you using? What were the conditions around you?

Step 2: System analysis

For each of the facts you record, try to determine what caused or allowed this condition or practice to occur. Asking "why" will help you get to the core of the problem. Record your findings.

Step 3: Corrective action

For each cause you've identified, develop solutions or corrective actions. (The solution could be the same for more than one fact.) Determine who is responsible for fixing the problem or implementing the solution, and when it should be done. This information can be updated or revised as needed. The following are descriptions of ways to control hazards:

Elimination/substitution—Remove or replace the hazard. While this is the most effective at reducing hazards, it also tends to be the most difficult to implement in an existing process.

Engineering controls—Isolate people from the hazard. Engineering controls (such as equipment guards or shields) are highly effective because they are designed to remove the hazard at the source, before coming in contact with the worker.

Administrative controls/PPE—Change the way people work, including adding personal protective equipment. Administrative controls and PPE are frequently used with existing processes where hazards are not particularly well controlled. They are helpful but have been proven to be less effective than thoughtful design or engineering measures.

Step 4: Monitoring

Management and the safety committee should follow up to make sure corrective actions were taken and countermeasures were used effectively.

If an injury requires medical treatment beyond first aid, you must complete the workers' compensation claim form (801). Legal requirements for recording and reporting work-related fatalities, injuries, and illnesses also may apply. Please visit **osha.oregon.gov/Pages/topics/recordkeeping-and-reporting.aspx** for additional information.

Hazard ID - Department inspection form

_____
(Area or department name)

Responsible manager or supervisor: _____ Date: _____

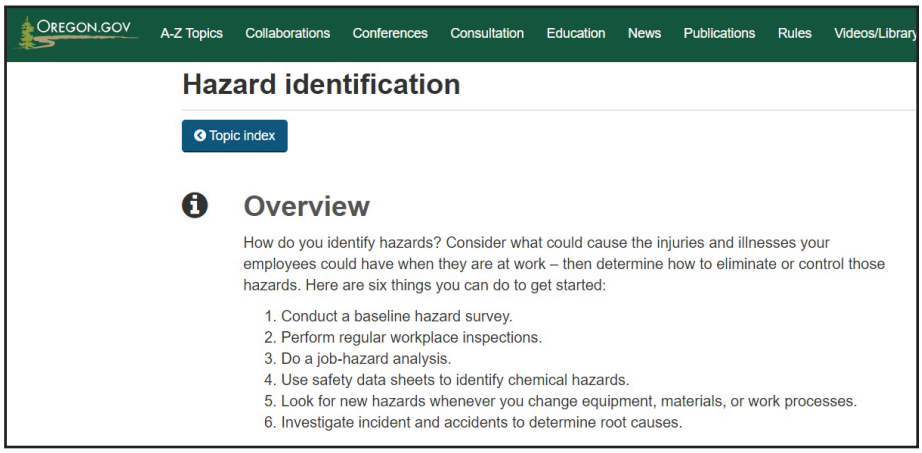
Inspection conducted by: _____

If there have been injuries or near misses, be sure to focus attention on preventing them from happening again.

Indicate priority of items needing attention 1 = Low priority | 2 = Medium priority | 3 = High priority (Circle any IMMINENT DANGER items)	
CHECK ITEMS NEEDING ATTENTION	**DESCRIBE DEFICIENCIES NOTED AND ACTIONS REQUIRED**
WALKING AND WORK SURFACES ☐ Housekeeping ☐ Aisles ☐ Exits ☐ Work surfaces ☐ Stairs and Ladders ☐ Other	
MACHINERY ☐ Point-of-operation guarding ☐ Barriers and gates ☐ Interlocks ☐ Lockout tagout ☐ Other	
ELECTRICAL ☐ Panel clearance maintained ☐ Circuits marked ☐ Extension cords ☐ Grounding and GFCI ☐ Other	
CHEMICAL ☐ SDSs available and organized ☐ Container labeling ☐ Storage and arrangement ☐ Flammables in approved safety containers and cabinets ☐ Any spillage or leakage ☐ Cylinders secured ☐ Other	

Indicate priority of items needing attention 1 = Low priority | 2 = Medium priority | 3 = High priority (Circle any IMMINENT DANGER items)	
CHECK ITEMS NEEDING ATTENTION	**DESCRIBE DEFICIENCIES NOTED AND ACTIONS REQUIRED**
ENVIRONMENTAL ☐ Airborne contaminants ☐ Ingestion hazards ☐ Skin contact ☐ Noise ☐ Temperatures ☐ Illumination ☐ Ventilation ☐ Personal Protective Equipment ☐ Other	
ERGONOMICS ☐ Awkward postures ☐ Repetitive motion ☐ Forceful exertions ☐ Contact pressure ☐ Work station design ☐ Other	
UNSAFE BEHAVIORS ☐ Horseplay ☐ Unsafe lifting ☐ Improper tool use ☐ Bypassing safety devices ☐ Not using PPE ☐ Risk taking in general ☐ Other	
AREA SPECIFIC HAZARDS ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____	

YouTube:
Search
Farm shop safety: Improving your odds.



www.osha.oregon.gov /pages/topics/hazard-identification.aspx

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Work. Life. Oregon.

Safety committee agenda/minutes

Company name: _____

Division/department: _____ Date and time: _____

Chairperson: _____

Members present: _____ Members absent: _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Old business

Recommendations not completed; (use recommendation number) reason(s):

_____

_____

_____

Recommendations completed:

_____

_____

_____

New business

Review of inspections; safety and health training; new recommendations (number using year and sequential numbers: 91-4, 91-5, etc.):

_____

_____

_____

Safety/health suggestions submitted:

_____

_____

_____

Find safety committee forms on **saif.com >** Safety and heath **>** topics **>** Be a leader **>** Safety committees and meetings **>** Safety committee resource guide.

Old business

Be sure to review old business items. These are things you've discussed in previous meetings.

Old business can be considered in two categories:

Items not complete

These are items we still need to tackle. Sometimes these will be items that were just brought up the prior month that we just haven't had time to address yet. Sometimes these are things that have lingered for months (or years).

If we find items that just aren't getting done, we may need to dig into them a little bit. What's keeping it from being done? Lack of time, lack of funds, not a priority? Sometimes its just a matter of assigning it to someone.

If we have old business items that we know we're going to wait until a slower time of year for, we might even note "winter project" on them, so our documentation shows that we aren't just being lazy or neglectful, but intentionally pushing out lower-priority items until the time of year that it makes sense to tackle them.

Sometimes things will make it onto this list that we realize don't actually need done anymore or have already been resolved in a different way, which is OK too.

Items resolved

These are things from that last month's meeting that were identified as being addressed, resolved, or no longer necessary, which can be reviewed one more time to ensure they're REALLY dealt with. This is also a great section to document brag-worthy successes that you want to make sure OSHA learns about when they review your safety committee minutes.

New business

This section can consist of anything new that's being brought up in the meeting. A good way to discuss this topic is to ask open-ended questions and then capture the answers.

Here are some examples of great questions to ask to start these discussions and gather information:

What work is coming up?

What are we going to be doing?

How could someone get hurt?

What will we do if someone does get hurt?

What safety concerns do you have?

What PPE or other supplies do we need in order to keep you safe or make your jobs easier or better?

New business is also a great opportunity to include brief trainings on relevant topics, especially when you have many employees involved.

Post the meeting minutes

OSHA has strict guidelines about what to do with the minutes we generate from these meetings. After they are typed up, a copy of the minutes is supposed to be given to each member of the safety committee for review, as well as be made available to view for all other employees as well, usually by posting them up in the office, break room, or other "conspicuous location."

Finally, make sure you retain copies of your safety committee minutes for at least three years. If you are inspected by OSHA, you can expect that they will be asking for them.