

Plus

Oregon

OSHA

FACT SHEET

Eyewash and Safety Showers

OSHA 437
Division 2/K
Division 4/K

Eyewash and Safety Showers

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General Requirements

Where employees handle substances that could injure their eyes or get onto their bodies, eyewash stations or showers (or both) must be provided based on the hazard. **OSHA 437-002-0161, Medical and First Aid**, and **OSHA 437-004-1305, Medical Services and First Aid** requires the following:

- An unobstructed path; eyewash or shower accessible within 10 seconds.
- Installation meets manufacturer's requirements including criteria for water pressure, flow rate, and system testing.
- Water must flow for at least 15 minutes. Valves must remain open without the use of hands.
- Eyewash or shower stations must be clean, sanitary, and operating correctly; expired solutions must not be used in self-contained systems.

Hazard Assessment

An eyewash or safety shower is considered a first-aid measure rather than a preventative one. A hazard assessment determines the hazards associated with a chemical and which first-aid measures are to be used in the event of an emergency. Factors to be evaluated in a hazard assessment:

Chemical properties

The physical state, concentration, pH (acids with a pH less than 2.5 and alkalis with a pH greater than 11.0 require immediate flushing to prevent damage), temperature, etc.

Chemical-use patterns

How employees work with chemicals during handling, transfer, use, or disposal, including frequency and duration of use, and quantity of chemicals.

Training

Evaluate training requirements based on hazard communication, material safety data sheets, and the measures employees can take to protect themselves, including personal protective equipment.

Work-site conditions

Indoor or outdoor sites, protection from freezing conditions, fixed or non-fixed locations, and facility layout.

Equipment

Availability of eyewash and body- flush equipment and water sources.

Equipment

Plumbed units are preferred where a clean water source is readily available. Self-contained units are effective where a water source is not readily available. Both must meet the general requirements.

Eyewashes

Units must be provided in fixed work areas or stations when a hazard assessment or any other information indicates that an employee may reasonably be exposed to a substance that can cause corrosion or permanent tissue damage to the eyes.

Safety showers

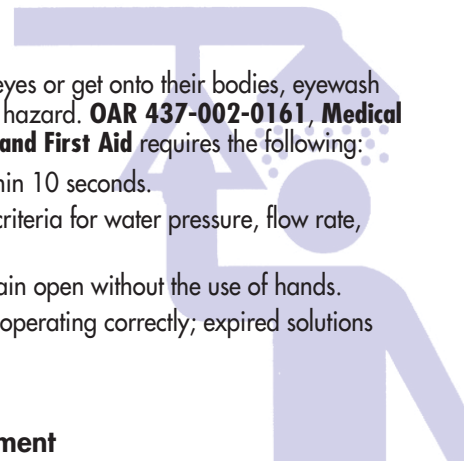
A shower is required at fixed work areas or stations when substantial areas of the worker's body may be exposed to large quantities of materials that are highly corrosive or highly toxic by skin absorption.

Hand-held drench hoses

A single-headed emergency washing device connected to flexible hoses and used to irrigate and flush the face or other parts of the body.

Solution/squeeze bottles

Chemical or isotonic solutions used as substitutes for water must be appropriate for the hazard, properly tested and maintained and replaced prior to the expiration date. They cannot be used as a sole means of protection nor a substitute for plumbed or self-contained equipment.



Location of Eyewash and/or Shower

Generally, the distance from the worker's location to the device should not exceed 10 seconds walking distance. The determinant factor is immediate eye irrigation within 10 seconds.

The path must be unobstructed and cannot require opening doors or passing through obstacles **unless** other employees are always present to help the exposed employee. Locating the eyewash or shower outside the immediate source of exposure, where gases or highly volatile substances (e.g. anhydrous ammonia) are present, may be necessary.

Design Specifications for Eyewash and/or Shower

Valve operation

Stay-open valves must be in place and be operable to allow an individual to use both hands to hold eyes open or remove clothing.

Temperature

Water should be tepid. Temperature extremes can pose a health hazard to the employee. Elevated water temperatures may accelerate adverse chemical reactions.

Water pressure and volume

In general, water pressure for plumbed eyewash should provide a water flow of at least 0.4 gallons per minute for 15 minutes. Self-contained eyewash units should meet the same flow-rate provision.

Safety showers (plumbed and self-contained) should provide a flow rate of at least 20 gallons per minute with a minimum of 15 minutes under all operating conditions.

Water quality

Only potable water should be used for eyewash and shower facilities. Improperly maintained plumbed or self-contained units can contaminate water reservoirs.

Testing

All eyewash and shower facilities must be adequately maintained and should be activated weekly to flush the supply and line and to verify proper operations.

Self-contained units should be maintained in accordance with the manufacturer's instructions. Particular attention must be given to flushing fluid and availability.

Specific Requirements

Eyewash and safety showers for electric storage battery charging, chlorine, anhydrous ammonia, and pesticides are addressed in an OSHA Program Directive, A-63, *Eyewash and Safety Showers*. www.osha.org/standards/pd_subj.html

Other OR-OSHA rules may have specific requirements other than those listed under **Division 2/K, OAR 437-002-0161** and **Division 4/K, OAR 437-004-1305**. If the chemical manufacturer requires specific decontaminates or procedures, you must provide them in addition to the eyewash or shower.

Training

Employees must be trained in accordance with **OAR 437-001-0760 (1)(d), Rules for all Workplaces**, on the hazards associated with the material, the location of the eyewash and/or shower facilities, and the proper procedure for flushing the eyes and/or skin.

Identifying the Units

The eyewash and safety shower facilities should be identified with a highly visible sign. The area around the facility should be well-lighted and highly visible.

Resources

For the full text of the rules adopted by Oregon OSHA, refer to **OAR 437 Division 2, Subdivision K: Medical and First Aid** and **Division 4, Subdivision K: Medical Services and First Aid**. (Rules/Compliance).

American National Standards Institute consensus standard, ANSI Z358.1-1998.

Related resource links

www.osha.org/standards/pd_subj.html

