

BE SAFE & COMPLIANT

Selecting eyewash and safety shower systems forces bulk site operators to consider legal requirements, best practices to support employee safety, how to minimize liability for the company, and requirements from the product registrant. This process includes deciding what features are required vs. desired, the location, training, testing, and documentation.

While OSHA does not specifically require emergency eyewash and shower facilities for TELONE™ II by Teleos sites, the EPA Worker Protection Standard has minimum requirements for an eye flush capability. Further, the TELONE™ II by Teleos Safety Data Sheet and the TELONE™ by Teleos Storage & Handling Guide call for eye and skin flushing capability.

At a minimum, TELONE™ by Teleos bulk site operators must have an eyewash station that complies with the EPA Worker Protection Standard, as well as a shower capability that allows washing exposed skin with plenty of water for 15-20 minutes. Selecting systems which comply with the ANSI Z358.1 standard are the preferred way to assure full compliance.



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OSHA: 29 CFR 1910.151(c) requires facilities to provide equipment for quick drench or flushing of the eyes and body where persons may be exposed to “injurious corrosive materials”. TELONE™ II fumigant is not classified as corrosive for OSHA purposes, and therefore is not subject to the explicit OSHA requirement for eyewash and showers. OSHA does have a general duty clause (29CFR 1910.1200) that requires employers to provide safety equipment suitable for use and emergency response, but limits application of that clause to only where there is no standard that applies to a particular hazard.

EPA: The preamble of the EPA Worker Protection Standard specifically notes that the final rule does not require employers to provide shower facilities. However, the WPS includes eye flush requirements in 40 CFR 170.509(d). It requires that employers “Provide a system capable of delivering 0.4 gallons/minute for 15 minutes, or 6 gallons of water able to flow gently for about 15 minutes at a mix/load site if handlers use products requiring eye protection or use a pressurized closed system.”

SDS: Further, the TELONE™ II by Teleos Safety Data Sheet (SDS) calls for washing exposed skin with soap and plenty of water for 15-20 minutes. Persons with eye contact are called to hold eyes open and rinse slowly and gently with water for 15-20 minutes. The SDS also says a suitable emergency safety shower facility should be immediately available.

STORAGE & HANDLING GUIDE: This guide calls for an eye wash and safety shower accessible from work areas. It also states that personnel must know the location and how to use them.

STATE REGULATIONS: States may implement and enforce safety requirements which are more stringent than federal requirements. Operators must be aware of state regulations.

WHY IS THE ANSI/ISEA Z358.1 STANDARD IMPORTANT?

A standard does not carry the force-of-law unless it is specifically adopted in a regulation. However, this standard is widely recognized as the ultimate in best-practices for eyewash and emergency shower design. While OSHA does not specify ANSI/ISEA Z358.1 as standard, the agency accepts the standard as a means of complying with 29 CFR Part 1910.151(c). OSHA's standard letters of interpretation support the agency's recognition of the standard. **Site operators can be confident of compliance if they purchase and maintain systems rated to meet ANSI Z358.1.**



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ANSI STANDARD DESIGN

Key elements of the ANSI Standard Z358.1 include minimum performance, testing, installation, maintenance and training specifications for equipment and systems used for emergency treatment of the eyes or body of a person who has been exposed to injurious materials. It covers plumbed and self-contained emergency showers and emergency eyewash equipment, eye/face wash equipment, combination units, personal wash units and hand-held drench hoses.

Key elements include:

- **PLACEMENT:** In most cases, units should be located within 10 seconds of the potential hazard. ANSI says the average person walks about 55 feet in 10 seconds, for a frame of reference on desired placement of equipment/stations.
- **ACCESSIBILITY:** Units should be accessible and on the same level as the hazard. The path must be free of obstructions. The unit must be well-lit and have a highly visible sign.
- **HEIGHT:** eyewash or eye/face wash heads to be located 33-45 inches above the floor; 82-96 inches for drench shower or combination drench shower/eyewash shower heads.
- **ACTIVATION:** The eyewash must begin flushing within 1 second; flush both eyes at once. Have hands-free stay-open valves so hands can be used to hold open eyelids while flushing.
- **FLOW:** Eyewash stations must have a minimum flush rate of 0.4 gpm for 15 minutes. Drench showers must have a minimum of 20 gpm at 30 psi.
- **PATTERN:** Drench shower flow patterns should be a minimum of 20 inches wide at 60 inches above the floor.
- **TEMPERATURE:** Tepid water required. The appendix defines tepid as between 60-100°F for the full fifteen-minute shower-use cycle.
- **TESTING:** Weekly activation of plumbed eyewashes to verify operation and flush contaminants such as bacteria or mold.

Z358.1-2004 (American National Standard for Emergency Eyewash and Shower Equipment) is available from ISEA (International Safety Equipment Association) <https://safetyequipment.org>.

PORTABILITY, POTABILITY, AND PLUMBING

Plumbing limitations are not the only reason to consider self-contained eyewash systems. An often overlooked aspect of eyewashes is potability. Bacteria and mold in eyewash sources can cause infections. Using sealed sources of water or saline can minimize bacteria and mold potential. Physical portability can be helpful if product is not present or used in the off-season.

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