



Plumbed Safety Shower and Self-Contained Safety Shower Standard

What is the ANSI Z358.1-2014 Standard?

The Occupational Safety and Health Administration standard 29 CFR 1910.151 states: “Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.” Because the terminology “suitable facilities” is quite vague, the ANSI Z358.1 standard was adopted in an effort to clearly define “suitable facilities.” The ANSI Z358.1 standard was initially adopted in 1981 and has undergone numerous revisions, with ANSI Z358.1-2014 being the most recent.

Types of Safety Showers

There are two types of safety showers that are deemed acceptable by the ANSI Z358.1 standard: plumbed safety showers and self-contained safety showers. Plumbed safety showers are connected to a potable water source while portable safety showers have their own flushing fluid. The compliance requirements for both types of units are the same.

Compliance Requirements

A quick overview of the compliance requirements are listed below (they are the same for both plumbed and portable safety showers):

- The flowrate of the water should be 20 gallons/minute for 15 minutes.
- The pressure of the flow of the water must be 30 pounds per square inch.
- The actuator valve must be hands-free and must remain open until manually closed.
- The water should start in one second or less after the actuator valve is opened.
- The height of the water column should be between 82 and 96 inches above the standing surface.
- The water patten should have a 20 inch diameter when measured 60 inches above the standing surface.
- The water must be tepid. This is defined by ANSI as 60 – 100 degrees Fahrenheit.
- Safety showers should be within 10 seconds of the hazard. This is defined by ANSI to be approximately 55 feet.
- If plumbed, the shower should be activated weekly. If self-contained, the water should be checked to ensure that it is still sufficient.



Employee Training

All personnel who could be exposed to a chemical splash or other chemical hazard should be trained to use the available safety shower. The training topics should include the location of the safety shower, how to use the safety shower, and how to assist someone who needs to use the safety shower.

Any Questions?

Any questions about the new ANSI Z358.1-2014 standard or questions about your safety showers can be directed to Lab Safety at EHS: (405) 744-7241.