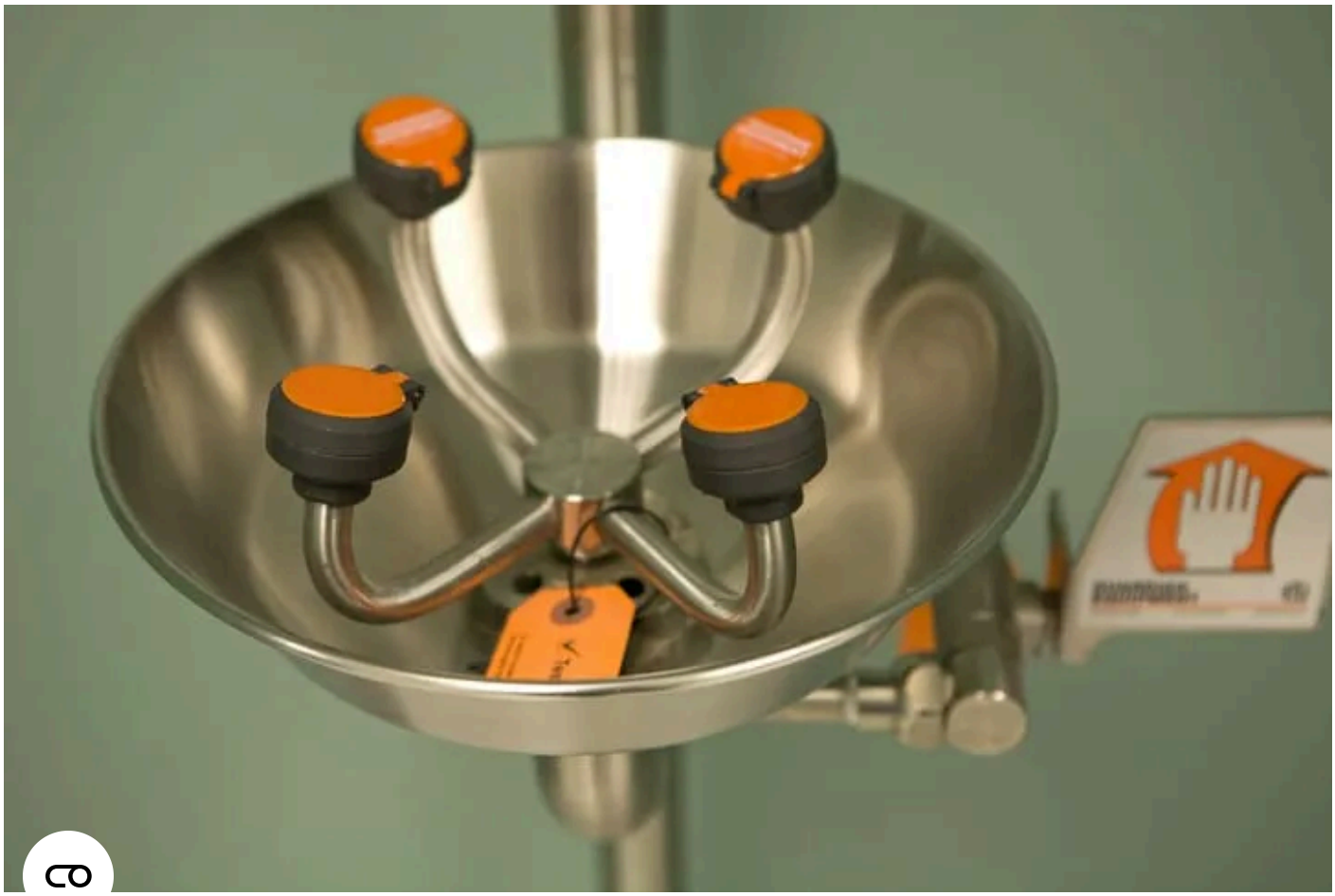
ANSI Z358.1-2014: Emergency Eyewash & Shower Standard

July 3, 2018 (https://blog.ansi.org/2018/07/emergency-eyewash-station-shower-ansi-z358-1/) Brad Kelechava (https://blog.ansi.org/author/brad-kelechava/) 31 Comments (https://blog.ansi.org/2018/07/emergency-eyewash-station-shower-ansi-z358-1/#comments)



When handling hazardous materials in factories, laboratories, or other workplaces, there's a lot of factors to consider in assuring personnel safety. As a final level of protection, emergency showers and eyewash stations need to remain visible, easily accessible, and reliable. This way, they can sufficiently combat any chemicals or other hazardous materials that may make contact with one's eyes or body.

Emergency eyewash stations, as well as shower equipment, are addressed by ANSI/ISEA Z358.1-2014: American National Standard for Emergency Eyewash and Shower Equipment (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog). This standard, written and published by the International Safety Equipment Association (ISEA), an ANSI-accredited standards developing organization, establishes minimum performance and use guidelines for eyewash and shower equipment for the emergency treatment of the eyes or body of someone who has been exposed to hazardous materials.

OSHA regulations address emergency eyewash and shower equipment in 29 CFR 1910.151 (https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9806). Specifically, 1910.151(c) 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."

However, this is the only federal requirement for emergency eyewash and shower equipment. OSHA has often referred employers to ANSI Z358.1 (https://www.osha.gov/laws-regs/standardinterpretations/2002-03-28) as a recognized source of guidance for protecting employees who are exposed to injurious corrosive materials. Furthermore, it has been adopted by many governmental organizations and the International Plumbing Code (IPC) (https://webstore.ansi.org/standards/icc/iccipc2021?source=blog).



ANSI/ISEA Z358.1-2014 (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog) covers emergency showers, eyewashes, eye/face washes, and combination units, and it is intended to provide uniform minimum guidelines for their performance, use, installation, test procedures, maintenance, and training.

Each clause in ANSI/ISEA Z358.1-2014 (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog) details a separate type of equipment. For all this equipment, including emergency showers, eyewashes, and similar equipment, the American National Standard states that the flushing liquid's velocity and quantity should be controlled, and that a control valve should be simple to operate and go from off to on in 1 second or less. The valve should also be resistant to corrosion.

Emergency showers and eyewashes, in accordance with ANSI/ISEA Z358.1-2014 (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog), should deliver tepid flushing fluid. However, there are certain circumstances in which a facilities safety/health advisor should be consulted for optimum temperature. Tepid fluid is considered 16-38 degrees Celsius (60-100 degrees Fahrenheit). It is also the installer's responsibility to assure that the shower or eyewash station is positioned so that it is highly visible and accessible, being in locations that take no more than 10 seconds to reach.

A breadth of information, specifications, performance guidelines, and illustrations for emergency shower and eyewash stations are detailed in ANSI/ISEA Z358.1-2014 (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog).

To aid in further compliance, ANSI/ISEA Z358.1-2014 (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog) is available as part of ANSI/ISEA Z358.1 / ANSI/ISEA Z308.1 – Workplace First Aid Kits and Eyewash Package (https://webstore.ansi.org/standards/isea/ansiiseaz358z308workplacefirst?source=blog) and ANSI/ISEA Z358.1 / ANSI/ISEA Z87.1 – Eyewash and Eye Protection Package (https://webstore.ansi.org/standards/isea/ansiiseaz358z87eyewasheye?source=blog).

ANSI/ISEA Z358.1-2014: American National Standard for Emergency Eyewash and Shower Equipment (https://webstore.ansi.org/standards/isea/ansiiseaz3582014r2020?source=blog) is available on the ANSI Webstore. You can also learn more about the standard, along with OSHA requirements for emergency eyewash and shower stations, from the video below: