



VCU

Safety and Risk Management

SRM Occupational Safety Eye Wash & Shower Testing SOP

Location and Placement:

OSHA requires that an emergency eyewash and shower unit must be available within “10 seconds” of unobstructed travel for an injured person. The American National Standards Institute (ANSI) defines “10 seconds” as 55 feet. While the design and placement of eyewashes and emergency showers are beyond the scope of annual testing, it is important to note discrepancies that may exist.

Required Equipment:

1. Timer
2. Tape Measure
3. Towels
4. Infrared digital thermometer
5. Green Gobbler (for showers and combo units)

Specific placement requirements are:

1. Eyewash and eye/face wash units:
 - a. Nozzles must be positioned between 33-45 inches from the floor.
 - b. A minimum distance of 6 inches from the nearest obstruction is required.
2. Drench hose units:
 - a. The head of the hose must be placed 33-45 inches from the floor with a clearance of 6 inches from the wall.
3. Emergency Showers:
 - a. Distance of shower head to the floor must be between 82-96 inches.
 - b. Actuator height must be no higher than 69 inches from the floor.
 - c. Showers must have a clearance of 48 inches along the side and 30 inches across (creating a surface area of 10 square feet around the shower unit).
4. Combination Units or Safety Stations:
 - a. Refer to the dimensions above for distance and clearance of the eye/face wash and shower units.
5. Self-contained / Portable eye washes:
 - a. Cannot be activated weekly without using up valuable solution, so ANSI recommends visually inspecting the unit to see if the fluid needs changing or supplementing.
 - b. Plumbed eye washes are required when corrosive materials are present in the work space.



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Correction of Deficiencies:

If the emergency unit is not operating to specifications, corrective action must be initiated:

- Notify your supervisor to implement appropriate tagging of unit as “DO NOT USE”
- The supervisor must initiate a ticket to Facilities Management for repair or replacement.

Testing:

1) Eyewash and Eye/Face wash units

- Weekly Flush Test (conducted at user level)
 - Visual inspection of the unit. Look for leaks or pipe damage and proper placement of protective covers. This should be done prior to testing in order to avoid further damage to the unit and risk of injury to users. Ensure unit is free of any obstructions.
 - Activate unit. Ensure that the water flow is continuous, evaluate that the unit can maintain flow for 3 minutes, and is not injurious to the user's eye or face.
 - Valve actuator must activate water flow in one second or less.
 - Valve actuator must stay on unless manually turned off.
 - Sanitize water supply through weekly flushing. Flush the unit for 3 minutes to relieve the unit of any rust and other pipe build-up.
 - Document test on provided log sheets by entering initials and dates of test. Ensure weekly test logs are easily accessible and available for review upon request.
- Annual Flow Test (conducted by SRM)
 - Ensure appropriate tag is on all units.
 - Visual inspection of the unit. Look for leaks or pipe damage and proper placement of protective covers. This should be done prior to testing in order to avoid further damage to the unit and risk of injury to users. Ensure that the unit is free of any obstructions.
 - Let the water run for one minute to collect at least 1.5 liters (0.4 gallon) of water for eyewash alone and 11.4 liters (3.0 gallons) for an eye/face wash unit.
 - Eye Wash temperature should be tepid to the touch, between 60-100 Degrees Fahrenheit
 - Document test with dates and initials on unit tag and P for “Pass” or F for “Fail”.

2) Emergency Showers (Annual Flush Test conducted by SRM)

- If shut-off valve is located above ceiling tiles, FMD must be present to conduct testing.
- Ensure appropriate tag is on unit.



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Green Gobbler- Shower Testing

1. Requires two people lift into vehicle
2. Instructions are on funnel
3. Never run dry pump
4. This equipment can run through multiple shower tests before needing to be drained
5. Drain into sink if available, or outside away from walkways if unavailable.

Per OSHA Standard 29 CFR 1910.151 (C), OSHA makes decisions based on individual circumstances. OSHA often refers to ANSI / ISEA Z358.1 for guidance as to an industry consensus, which OSHA may or may not require in particular circumstances.

Compliance Checklist - Emergency equipment shall be activated weekly

Showers

- Water supply 20 GPM (75.7 LPM) min.
 - Run the shower for 6 sec.
 - Collect 2 gallons (7.57 liters) in that time => 20 GPM /75.7 LPM)
- Water is to be clear
- Water temperature range: 60°F/16°C - 100°F/38°C

Eyewash and Eye/Face wash

- Eye/Face wash
 - Water supply 3 GPM (11.4 L/m) min.
 - Run the Eye/Face wash for 20 sec., collect 1 gallon (3.78 liters) => 3 GPM/11.36 LPM)
- Eyewash
 - Water supply 0.4 GPM (1.5 L/m) min.
 - Run the Eyewash for 1 min. and collect 0.4 gallon (1.5 liters)
 - OR collect 0.5 gallons (1.9 liters) in 1 min. 15 seconds => 0.4 GPM / 1.5 LPM)
- Water is to be clear
- Velocity to be low enough to be non-injurious
- Water temperature range: 60°F/16°C - 100°F/38°C

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Documentation:

1. Record testing results on the [Eyewash & Shower - Rollup Table - Master List](#) under the appropriate tab. If you require editing access to this sheet, contact Occ Safety (occsafety@vcu.edu)
 - a. Locate the unit tested on the spreadsheet and enter the date tested in column E.
 - b. **Fail** the unit (Column I) if the following requirements are not met:
 - i. No water flow
 - ii. Low water flow (eyewash <0.4 gpm; shower <20 gpm)
 - iii. If the unit is unable to deliver flushing liquid for 15 minutes
 - iv. Water does not run clear after adequate flushing
 - v. Immovable obstructions
 - vi. Temperature is <60 degrees or >100 degrees F
 - vii. If the unit Fails, place a "Do Not Use" tag on the eyewash and notify your supervisor.
 - c. Flag the unit as **non-ANSI Compliant** ("No" in column H) if any of the following requirements are not met:
 - i. Specific placement measurements as listed above.
 - ii. The valve actuator automatically closes when the handle is released.

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- iii. Activation of the unit takes more than 1 second.

Regulatory Reference:

1. The American National Standards Institute (ANSI)
 - a. [Z358.1 2014](#)
2. Occupational Safety and Health Administration (OSHA)
 - a. [29 CFR 1910.151\(c\)](#)
 - b. 29 CFR 1910.1048(i)(3)
 - c. 29 CFR 1910.1030(e) (3)(i)