# Environmental Health & Safety Eyewash Testing Standard Operating Procedure

### **Access Requirements**

Laboratories using or storing corrosive materials must have immediate access to an eyewash. Immediate access means that the eyewash is located less than 10 seconds, or approximately 55 feet, away and does not require travel through a doorway, navigation of stairs, or other obstacles.

#### Questions about this topic can be directed to Safety@tcu.edu.

### **Testing Requirements**

TCU requires testing of all plumbed eyewashes (for Plumbed Eyewash examples see below) within laboratory spaces monthly, at a minimum. The American National Standards Institute (ANSI) and EHS recommends testing performed weekly.

TCU Facilities Department externally contracts annual testing of all plumbed eyewash stations.

### **Documentation**

Documentation must be kept detailing when eyewashes are tested. This documentation will be checked by EHS during scheduled laboratory inspections. The TCU Eyewash Testing Log is available on the EHS website or by request.

### **Testing Standard Operating Procedure (SOP)**

To test a plumbed eyewash:

- 1. Visually inspect the unit.
  - a. Look for corrosion, damage to protective covers and evidence of leaks.
  - b. Ensure the unit is clear and free of any nearby obstructions or blockage.
- 2. If needed, assemble supplies under and/or around the eyewash to capture any outflowing water.
  - a. Recommendations include an empty tub, 5-gallon bucket, or large trash bag.
- 3. Activate the eyewash. The eyewash should be turned on to full strength.
- 4. Allow the water to run long enough to ensure the flowing water is clear and free of debris. Once water is clear, continue to run the water at full strength for an additional 30-60 seconds.
- 5. While in continuous flow, insert thermometer bulb into water and register temperature. Water temperature should be between 60° and 100° F.
- 6. Deactivate the eyewash. Collected water may be poured down a sink drain. Clean up any water that may have splattered or spilled onto the floor and/or wall.
- 7. Replace protective caps, if present.
- 8. If repairs are needed, notify EHS at <u>Safety@tcu.edu</u> for work order submission. Examples include:
  - a. Eyewash is leaking during operation.
  - b. Water flow uneven, too strong or too weak.
  - c. Water too hot or too cold.
  - d. Water does not run clear.
- 9. Complete Eyewash Testing Log with: Eyewash type and location within room, date, water temperature, and your signed initials.

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To test a non-plumbed, self-contained eyewash (for Self-Contained Eyewash examples see below):

- 1. Visually inspect the unit.
  - a. Look for corrosion, damage to protective covers and evidence of leaks.
  - b. Ensure the unit is clear and free of any nearby obstructions or blockage.
- 2. If needed, replace or replenish the flushing fluid in the reservoir.
  - a. Flushing fluids, typically buffered saline solutions, have expiration dates. Replace the flushing fluid per the expiration date. If no expiration date is supplied by the manufacturer, replace annually.
- 3. Follow any other manufacturer instructions if necessary.
- 4. Complete Eyewash Testing Log with: Eyewash type and location within room, date, and your signed initials.

### **Compliant Eyewash Types**

Any eyewash installed on campus should meet the requirements of ANSI Z358.1-2014. New installations in lab spaces will be performed by TCU Facilities after required approvals.

### **Plumbed Eyewashes**

*Wall -Mounted* - A plumbed eyewash that is mounted on the wall. The eyewash may or may not have a bowl. The eyewash may drain to the building plumbing or to the floor. If eyewash drains to floor, ensure capture of outflow.



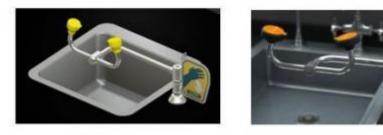
*Floor-Mounted* - A plumbed eyewash that is mounted from the floor; also known as a pedestal. The eyewash may drain to the building plumbing or to the floor. If eyewash drains to floor, ensure capture of outflow.



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### Deck Mounted

**Swing Arm** - A plumbed eyewash that is mounted on a countertop, usually next to a sink. The eyewash remains over the countertop when not in use. For use, the eyewash swings over the sink basin and drains directly into the building plumbing through the sink drain.



**Dual-Head Drench Hose -** A plumbed eyewash that is mounted on a countertop, usually next to a sink. The handle is attached to a flexible hose below the countertop. The eyewash can be used in place or pulled out for closer use. If used over a sink, it drains directly into the building plumbing through the sink drain.



*Faucet-Mounted* - A plumbed eyewash that is mounted directly on a faucet. The eyewash drains directly into the building plumbing through the sink drain. Labs must contact EHS and Facilities to request installation of these units.

Note: Faucet-mounted eyewashes are often not temperature-controlled nor can be activated in one second or less. If it does not meet all eyewash performance and installation requirements then it is considered a supplemental device only.





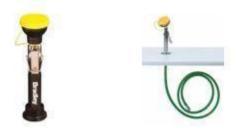
**Self-contained Eyewash** - A non-plumbed eyewash that has a reservoir of flushing fluid and uses gravity to feed that fluid to the eyewash heads. Usually mounted on a wall. Self-contained units must be able to provide 0.4 GPM tepid flushing fluid for 15 minutes to qualify as an OSHA-compliant eyewash.



### Supplemental Personal Eyewash Types

<u>The devices below are not OSHA-compliant eyewashes;</u> they may only be used as supplemental units. These units may not be used as a permanent eyewash and therefore must be replaced by an OSHA-compliant eyewash as soon as possible.

**Deck-Mounted Single-Head Drench Hose** - Like a dual-head drench hose, a plumbed device that is mounted on a countertop, usually next to a sink, and attached to a flexible hose below the countertop. If used over a sink, it drains directly into the building plumbing through the sink drain.



**Squeeze Bottle -** A plastic bottle usually filled with a buffered saline solution. Saline solutions expire and should be changed out according to the schedule recommended by the manufacturer. If tap water is used in a squeeze bottle, the water should be changed weekly.

