Eye Wash Requirements

Presented to the VUMC EOC survey team
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Required Locations

OSHA CFR 1910.151(c)

“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.”
Required Locations (cont.)

**Required** by OSHA for the following locations:
- In HIV research Labs (29 CFR 1910.1200)
- In areas where the following are used:
  - Corrosive chemicals (29 CFR 1910.151)
  - Carcinogenic chemicals (29 CFR 1910.1003)
  - Formaldehyde (29 CFR 1910.1048)
  - Methylene Chloride (29 CFR 1910.1052)

Recommended Locations

**Strongly Recommended** by OSHA:
- In Laboratories
- in areas where the following are used
  - glutaraldehyde containing products
  - Hazardous drugs (i.e. chemotherapy prep and administration areas)

General Recommendation – placement in areas where there is high risk for blood borne pathogen exposure (high risk for splash/spill)
Vanderbilt Assessment

An area **MUST** install an eyewash station if any of the following apply:

- **Use, compound** or administer chemotherapeutic agents or other "hazardous drugs".
- Use any other **hazardous or corrosive chemicals**. This doesn't include things like White Out or Lysol. These would be chemicals with a pH less than 2 or greater than 10 or chemicals that have flammability, health, reactivity ratings of 3 or greater (NFPA diamond).
- Use **formaldehyde**. *(Don't consider formaldehyde in the small specimen vials unless staff is pouring formaldehyde from a larger container into the vials.)*
- Use glutaraldehyde containing products.
- Have a **laboratory** (other than point of care testing) or **pharmacy** in the area.

Vanderbilt Assessment (cont.)

Installation of an eyewash station is strongly recommended if there is a **high risk for blood and body fluid splashes** due to complicated medical procedures performed in an area.
OSHA Refers to the ANSI Standard

- ANSI is the American National Standards Institute. ANSI Z358.1-2004 is the standard that addresses emergency water.

- This is a voluntary standard covering emergency eye wash and shower equipment.

- This voluntary standard has *not* been adopted by OSHA as regulation.

General Information from ANSI

- Eyewash station is not a substitute for personal eye protection
- Must be located in an accessible location
- The water in the eyewash station must be potable (clean/drinkable).
- A controlled flow of water must be provided to the eyes at a velocity low enough not to be injurious to the user
- There must be no sharp projections in the operating area of the eyewash unit.
- Nozzles are protected from airborne contaminants; protected (covered) when not in use.
- The control valve is:
  - Capable of being quickly located and operated and
  - Capable of being activated quickly
General Information from ANSI

- Once activated, should be **hands free** water flow.
- Most eyewash stations have dual flow, providing water to both eyes simultaneously.
- Unit is identified with a highly visible **sign**.
- Plumbed eyewash units are activated weekly to flush the line and verify proper operation.
- Must be tepid water that does not exceed 100 degrees Fahrenheit.
- Can provide 15 minutes of continuous water flow.

Drench Hoses

**ANSI**: A drench hose may be considered an eyewash or eye/face wash if the device meets the requirements noted previously (with the exception of the dual stream).
Checking the Eyewash Station

- When you activate the eyewash unit:
  - The unit should activate within one second and remain open.
  - Stream should be cold/tepid water only (< 100 deg F).
- Flushing streams should rise to approximately equal heights and be non-injurious to the user.
- Eyewash stations must be checked weekly and documented. The Weekly Eyewash Test Schedule Log is available on edocs.

Common Problems

- Nozzles clogged, broken or missing
- Activating valve inoperable
- Improper water pressure—too high or low
- Low fluid levels in self-contained eyewashes
- Foreign particles in bowl or basin
- Nozzle dust covers not installed or broken
Eyewash Parameters Checked by the EOC Survey Team

Indicator on the EOC survey form: Safety eyewash is present, operational, plumbed to tepid/cold water, & checked weekly (log maintained).

Check:

- Placement
- Signage
- Nozzles have covers (and are covered when not in use)
- Ease of Activation
- Flow of water (run 30-60 seconds)
- For cold/tepid water temperature

Correct Water Flow

Water flow parameters for dual eyewash station

Rainbow image showing correct water flow parameters for dual eyewash station.
Examples of Eyewash Equipment

Dual eyewash station

Drench Hose