



# ECKERD COLLEGE

## Safe Operating Procedure

(12/03)

### EMERGENCY EYEWASH AND SHOWER EQUIPMENT

*Note: Emergency eyewash stations and showers are not substitutes for eye and face protection and protective clothing.*

**Eyewash stations are installed on main faucets of all labs in the Sheen and Galbraith complex. Squeeze bottles are located around the labs and should be used in conjunction with the permanent eye wash stations.**

**Showers are located near the west outside stairwell of Sheen C, in each chemical lab upstairs in Sheen C and throughout Galbraith.**

#### **Where do I need an emergency eyewash and/or shower?**

- In areas where open containers of caustic/corrosive and hazardous chemicals are used (eyewash station and shower).
- Chemical, and biological laboratories (eyewash station and shower).
- Shops (at a minimum, eyewash stations are recommended. If hazardous chemicals are used in the shop, a safety shower should also be present).

#### **What kind of eyewash station and emergency shower do I need?**

A hands free unit capable of providing 15 minutes continuous flow at 0.4 gallons per minute for eyewash stations and 30 gallons per minute for showers.

Hand-held drench hoses may be used in conjunction with safety showers and eyewash stations, but are not a substitute for safety showers or eyewash stations.

#### **Where should they be located?**

Eyewash stations and emergency showers should be located within 10 seconds unobstructed travel (do not block) of the hazard; preferably in the laboratory/shop/work area; and preferably within 10 feet of the hazard.

#### **Testing and maintenance requirements.**

Test the eyewash station monthly to verify proper operation and flush the line.

#### **Training.**

All employees and lab students who might be exposed to a chemical splash must be instructed in the proper use of the eyewash and shower.

Requirements that apply to both eyewash units and shower units

- Sole purpose must be as an eyewash or emergency shower unit.
- If shower is needed, separate eyewash required (combination unit is acceptable).

- Quick-opening valve that remains open (simple to operate in less than or equal to 1 second).
- Operational with both hands free.
- Water temperature must be tepid or lukewarm (between 15° and 35° C; 60° and 95° F).
- Travel time less than or equal to 10 seconds; ANSI recommends eyewashes be located immediately adjacent to the hazard for pH less than or equal to 1 or greater than or equal to 12. Unit shall be on the same level as the hazardous substance.
- Location well lit, highly visible, marked with highly visible sign.
- Unobstructed passages and access to units.
- Operable at all times with provisions to prevent unauthorized shutoff.
- Sewer connection or drain not required unless special hazards noted.
- Must be in compliance with ANSI Z358.1-1998 and verified annually through inspection.
- Units shall be installed in accordance with manufacturer's instructions.

#### Requirements for eyewashes only

- Installed so nozzles are 83.8 to 114.3 cm (33 to 45 inches) from floor.
- Pressure reduced divergent flow of flushing liquid.
- Minimum of 1.5 liters per minute (0.4 gallons per minute) potable water or commercial flush for 15 minutes.
- Weekly checks to flush lines and verify proper operation; plumbed units to be flushed for three minutes.
- Where contamination can occur, nozzles protected from contaminants by covers; removal of covers shall not require any extra step beyond activation of unit.
- Self-contained and portable units must provide 1.5 liters per minute (0.4 gallons per minute) for 15 minutes (equals six-gallon capacity).
- Portable units to be used only where fixed installation not feasible.
- Squeeze bottles used only in conjunction with eyewashes.
- Drench hoses used only in conjunction with eyewashes unless at open surface tanks.

#### Requirements for showers only

- Overhead mounted with head height 208.3 to 243.8 cm (82 to 96 inches) from floor or platform.
- Minimum of 75.7 liters per minute (20 gallons per minute) flow of flushing fluid dispersed throughout pattern.
- Monthly checks to flush lines and verify proper operation.
- Valve actuator location less than or equal to 173.3 cm (69 inches) above the floor or platform.



**Emergency Eye Wash Station**



**Emergency Shower**