

EYEWASHES & SAFETY SHOWERS

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Research Safety

Office of Research

UNIVERSITY OF GEORGIA

I. Purpose & Scope

This document is meant to provide an overview of the University's requirements for safety plumbing devices such as eyewashes and safety showers. These requirements are for such features that are located within or in close proximity to both teaching labs and research labs.

II. Eyewash & Safety Shower Location

- A.** All emergency safety showers shall be located within a 10-second walking time from the location of any hazard within the lab. For teaching laboratories, emergency safety showers may be permitted in central locations such as hallways.
- B.** Emergency showers and eyewashes must be on the same floor as the hazard. Users must not be required to go up or down stairs or ramps to access the nearest unit.
- C.** Research laboratories involving work with chemical or hazardous processes (particularly those involving the use of corrosive substances and/or formaldehyde) should be equipped with at least one eyewash station per 350 square feet of laboratory space and one emergency safety shower within 10 seconds of walking distance from the hazard(s) provided that the path of travel does not go through more than one outwardly opening door from the laboratory space.
- D.** All preparation rooms with chemical storage used for academic laboratories shall be equipped with at least one permanently installed emergency shower and eyewash station.
- E.** Teaching laboratories with wet chemicals or other hazardous operations shall have at least two approved eyewash stations per 24 seats or student work stations.

III. Operating Requirements

- A.** All emergency safety showers and eyewashes shall meet the requirements of the latest ANSI Z358.1 standard.
- B.** The area surrounding both safety showers and eyewashes should be kept unobstructed and provide unimpeded access to the unit. The Office of Research Safety verifies that units are unobstructed during periodic safety assessments.
- C.** Safety showers
 - Floor drains located under safety showers are permitted at the University's discretion.

- Safety showers shall be able to be activated in one second or less.
- Safety showers shall be capable of delivering water at a minimum rate of 20 gallons per minute (75.7 liters per minute) for a minimum of 15 minutes.
- The height of the shower activation handle shall at most be 69" above the surface of the floor. For this reason, it is a violation of UGA policy to move or alter the handle in any way that would place it higher than this maximum distance.

D. Eyewashes

- Eyewashes should be set up with mixing valves to deliver tepid water at a velocity low enough to be non-injurious to the user.
- Eyewashes shall be capable of delivering no less than 0.4 gallons per minute (1.5 liters per minute) of water for 15 minutes.
- Eyewashes shall be designed and installed in such a manner that, once activated, they can be used without requiring the use of the operator's hands. The user's hands should be free to hold the eyelids open.
- Eyewashes shall be capable of providing a flushing stream to both eyes simultaneously.
- Eyewashes should be able to be activated in one second or less.

E. Self-contained eyewashes (i.e., units that are not plumbed) are usually discouraged by the Office of Research Safety but if placed in a lab the following guidelines shall be followed.

- The unit must be set up per the manufacturer's instructions.
- The unit should be filled with water or with the pre-packaged flushing fluid provided by the manufacturer.
- Units should be able to be activated in one second or less.
- Flushing fluid should be exchanged periodically for the unit in accordance with the manufacturer's instructions or when expired.

F. Supplemental units such as drench hoses are acceptable as additional protection in the event of an emergency but are not intended to be replacements for actual safety showers and eyewashes.

G. Eyewashes of the Guardian™ type are equipped with foam filters underneath the eyewash spray head. These filters can disintegrate over time and must be periodically replaced. To check these filters, the eyewash spray head can be twisted off by hand and if a replacement filter is needed, a work order may be placed with UGA FMD.

IV. Postings & Signage

- A.** Each emergency safety shower and eyewash shall be marked with highly visible signs with both pictures and text to mark the location of the unit in a manner that should be highly noticeable to those working in the lab.
- B.** The Safety Information Sign (usually located on or near the back of each exit door from the main lab) should clearly indicate where in the room each eyewash and safety shower is located using simple directional phrases (e.g., to your left) or using highly visible landmarks within the lab (e.g., to the right of the fume hood).

V. Testing Requirements

- A.** Laboratories should flush eyewash stations weekly. To track the weekly tests, labs may use the Weekly Testing Log appended to this document. Additionally, eyewashes will be tested annually by the Environmental Safety Division.
- B.** Emergency safety showers will be tested annually by the University's Environmental Safety Division.
- C.** Green tags should be attached to each safety shower and eyewash indicating the last date of annual testing by ESD and the initials of the tester.
- D.** All safety showers and eyewashes should be labeled with a unique identifying barcode beginning with UGAE. If a unit is found that is missing this label, please contact the Environmental Safety Division or the Office of Research Safety.

VI. Contacts

Environmental Safety Division: 706-542-5801

Office of Research Safety: 706-542-5288

VII. References

Design Criteria for Laboratories, 5th Ed., Board of Regents of the University System of Georgia, 2019

Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards, National Research Council, 2011

ANSI Z358.1: American National Standard for Emergency Eyewash and Shower Equipment, American National Standards Institute, Inc., 2009

Code of Federal Regulations, 29CFR 1910.151(c), Occupational Safety and Health Administration, 1998

Code of Federal Regulations, 29CFR 1910.1048(i), Occupational Safety and Health Administration, 2013

EYEWASH WEEKLY TESTING LOG

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