

# EMERGENCY EYEWASH AND SHOWERS

## 29 CFR Part 1910.151 (c)



**This General Regulation Is As Follows:**



***"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."***

**General regulation applicable to all facilities that require the installation of emergency eye wash and shower equipment as a form of first aid.**



# EMERGENCY EYEWASH & SHOWERS REQUIREMENTS

The Second Type of Regulation Is Specific to Certain Industries:

- Activities Utilizing an Open Surface Tank,
- Storage and Handling of Anhydrous Ammonia
- Powered Industrial Trucks, (Batteries)
- Pulp, Paper and Paperboard Manufacturing,
- Telecommunications, and
- Hazardous Materials.
- Battery Repair and Charging Operations



# **EMERGENCY EYEWASH AND SHOWERS**

## **29 CFR Part 1910.151 (c)**

### **29 CFR 1910.132:**

**However, the employer could be cited for a violation of the General Duty Clause if the most reasonable predictable injury from such exposure is serious in nature, regardless if the product is corrosive or not.**

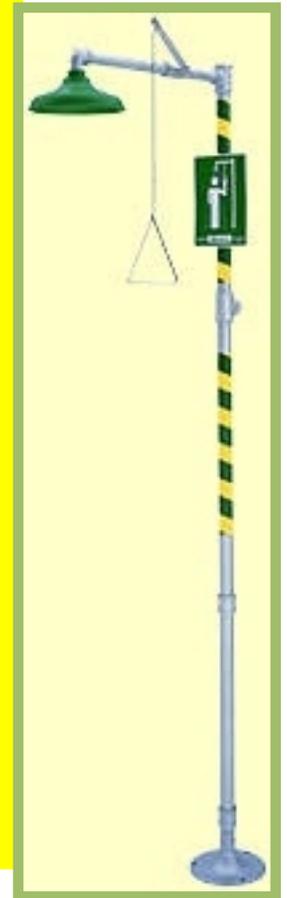
**The information on the MSDS and/or product label demonstrates that the hazard is "recognized".**

# EMERGENCY EYEWASH & SHOWERS REQUIREMENTS

OSHA regulations specify where and when emergency eye wash and shower equipment must be available.

These regulations do not specify minimum operating requirements or installation set-up requirements.

ANSI standard Z358.1-1990 and was revised in 1998. This "Emergency Eye Wash and Shower Equipment" standard helps the user in selecting and installing emergency equipment to meet OSHA requirements.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

**Q.** *What water temperature is required?*

**A.** The ANSI Z358.1 Standard states the use of “tepid water”. No temperature degree range is stated.

**Q.** *That is “tepid”?*

**A.** It’s defined as  
“moderately warm, lukewarm”



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998



American National Standards Institute  
ANSI Online is designed to provide you

ANSI Standards For Safety Showers & Eyewashes

### SHOWERS:

**Plumbed Shower**: Emergency shower permanently connected to a source of potable water.

**Self-Contained Shower**: Contains its own flushing fluid, & must be refilled/ replaced after use.





# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

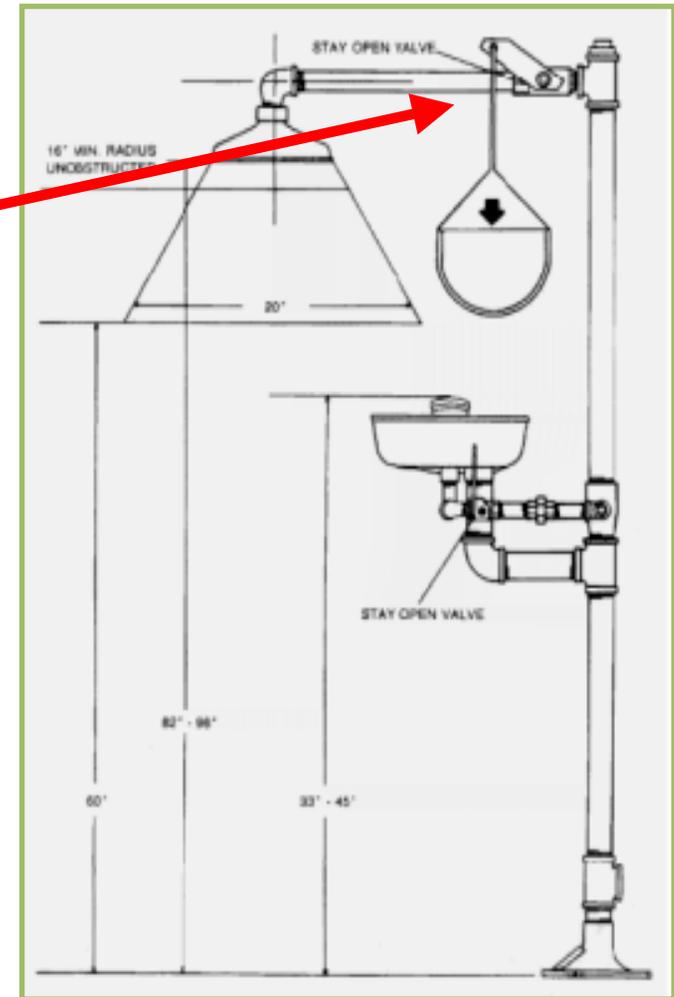
### Specifications: Showers

#### Valves

Activate in 1 second or less.

Stay-open valve (no use of hands).

Valve remains on until the user shuts it off.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### Specifications: Showers:

#### **Location:**

Shower located in an area that requires no more than 10 seconds to reach.

In a well-lit area and identified with a sign.

Located on the same level as the hazard.  
(No stairs, steps or ramps)



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### Specifications: Showers:

### Location: Continued

#### Note:

Old ANSI Standard stated within 100 ft.

Recent ruling required within 10 ft if corrosive material.

Same ruling allowed employer to consult a medical professional to determine the appropriate distance for harsh acids and caustics>

**(high hazard = closer distance).**



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### Specifications: Plumbed Showers:

### Maintenance and Training

Plumbed showers will be activated weekly to verify correct operation.

All employees who might be exposed to a chemical splash shall be trained in the use of the equipment.

All showers shall be inspected annually to make sure they meet with ANSI Z358.1 requirements.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### EYE WASHES (Plumbed and Gravity-Feed)

#### Plumbed Eye Wash:

Permanently connected to a source of potable water.

#### Gravity-Feed Eye Wash:

Device that contains its own flushing fluid and must be refilled or replaced after use.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### EYE WASHES

#### (Plumbed and Gravity-Feed)

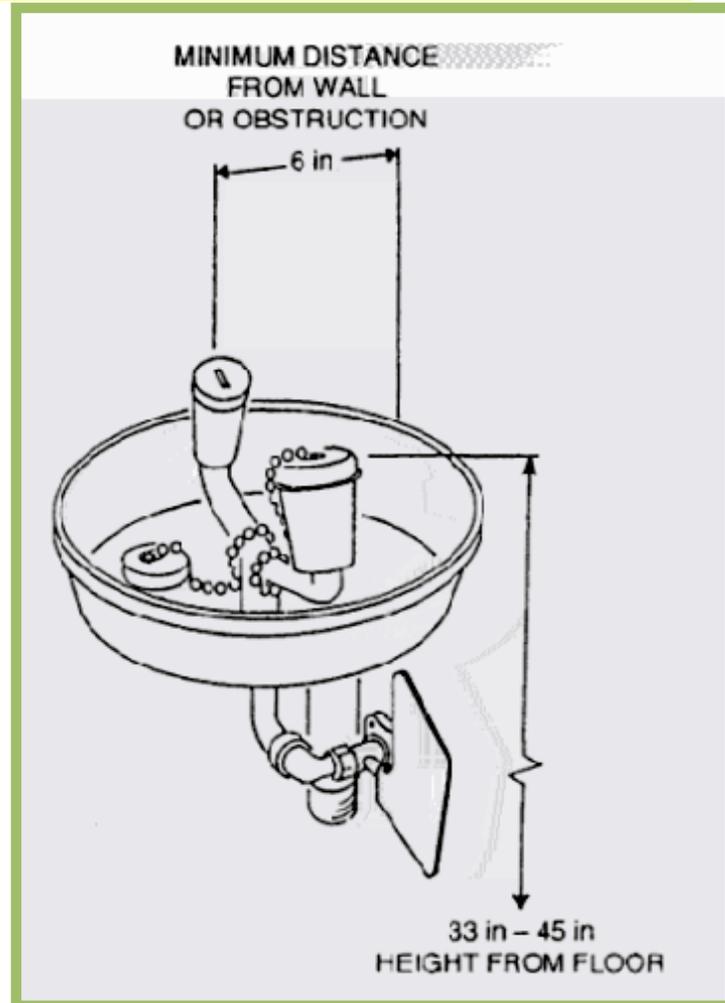
#### Heads

Positioned 33"-45" from floor.

Positioned 6" from wall or nearest obstruction.

0.4 GPM for 15 minutes for

Plumbed units shall provide flushing fluid at 30 PSI.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### EYE WASHES

(Plumbed and Gravity-Feed)

**Valves:**

**Activate in 1 second or less.**

**Stay-open valve (leaving hands free).**



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

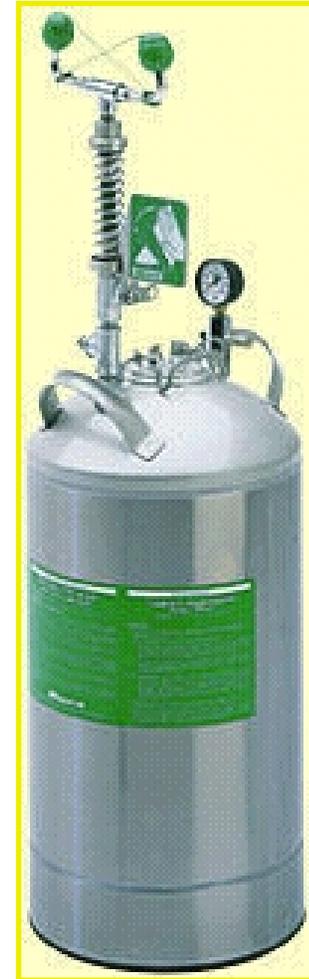
**EYE WASHES (Plumbed and Gravity-Feed)**

**Location:**

In an area that requires no more than 10 seconds to reach.

In a well-lit area and identified with a sign.

Same level as the hazard. (No Steps, Stairs, Ramps)



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### EYE WASHES:

#### Maintenance and Training

All units inspected annually

Plumbed eye wash - activated weekly to verify proper operation.

Gravity-feed units according to the manufacturer's instructions.

All employees who might be exposed to a chemical splash shall be trained in the use of the equipment.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### EYE/FACE WASH:

#### Valve:

Same as eye wash.

#### Installation:

Same as eye wash.

#### Maintenance and Training:

Same as eye wash



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### DRENCH HOSES

A flexible hose connected to a water supply and used to irrigate and flush eyes, face and body areas.

#### Heads:

3 gallons GPM.

#### Valves:

Activate in 1 second or less.



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### DRENCH HOSES

#### Installation:

Per the manufacturer's instructions.  
Located in a well-lit area and identified  
with a sign.

#### Maintenance and Training:

Activate weekly.  
All employees trained in the use of the  
equipment.  
Inspected annually.



**Note: Hand-held drench hoses support shower and eyewash units but shall not replace them.**

# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

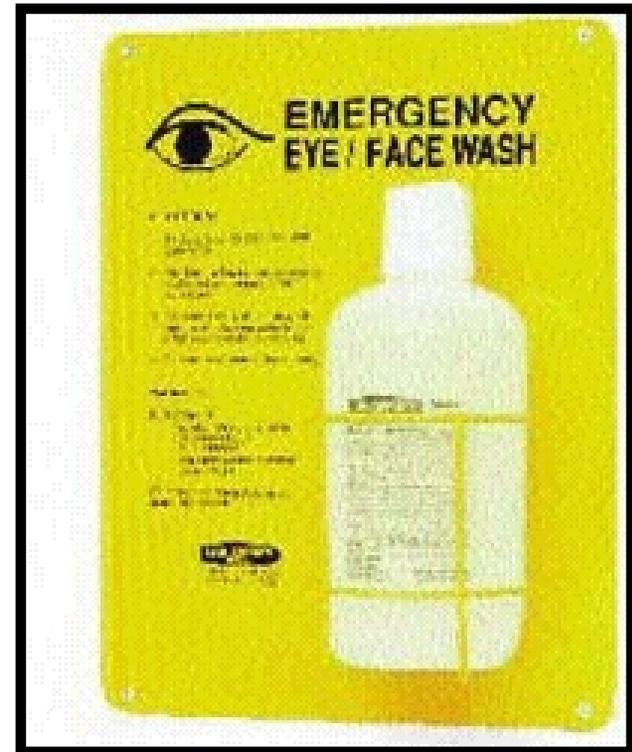
### PERSONAL EYE WASH

A supplementary eye wash that supports plumbed units, gravity-feed units, or both by delivering immediate flushing fluid.

**NOTE:** Can provide immediate flushing when they are located near the workstations.

Personal eye wash equipment does not meet the requirements of plumbed or gravity-feed eye wash equipment.

**Personal eye wash units can support plumbed or gravity-feed eye wash units, but cannot be a substitute.**



# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### PERSONAL EYE WASH (Cont.)

After immediate flushing the injured individual should then proceed to a plumbed or self-contained eyewash and flush the eyes for the required 15 minute period.

Emergency eyewash, shower, drench hose and combination units are not substitutes for proper primary protective devices.

As a defense against flying solid particles and splashing injurious liquids, workers should wear personal protective equipment as needed, including eye protection, face protection and protective clothing.

# EMERGENCY EYEWASH AND SHOWERS

## ANSI Z358.1-1998 Standard

### Training

ANSI Z385.1, Section 5.5.3 states:

“Employees who may be exposed to hazardous materials shall be instructed in the location and the proper use of emergency eyewash units.



When addressing washing of the eyes, training shall address holding the eyelids open and rolling the eyeballs so flushing fluid will flow on all surfaces of the eye and under the eyelid”

# **First Aid and Medical Services 29 CFR Part 1910 Subpart K**

**END**