

HAZARD ALERT

Chemical Splash

Date of Issue: October 6, 2008

Hazard Summary

Many businesses use a variety of products that can be dangerous or have chemicals that can cause an injury. These can range from petroleum and petroleum-based products (gasoline, diesel), to thinners and solvents (turpentine, acetone), paints, and cleaning products (bleach and soaps) to concrete (cement), agricultural products (fertilizers, herbicides, pesticides) and hair care products (dyes, conditioners).

Contact with these products may cause burns, particularly for splashes to the eye. Workers' Compensation Board records show nearly 350 claims for eye injuries due to chemical splashes in 2006; an additional 90 claims were for chemical burns to the skin.

Preventive Measures

Employers and employees are reminded that the Workplace Hazardous Management Information System (WHMIS) requires training for persons working with or exposed to hazardous products. Also the Occupational Safety General Regulations require the use of CSA approved safety glasses and shields where a risk of splashing may occur, as well as clothing appropriate to the hazard.

The Regulation also requires the use of emergency showers, eye wash fountain, or other equipment that can adequately remove the chemical substance where a person's eyes or skin may be affected. The American National Standards Institute (ANSI) Standard Z358.1 2004 "Emergency Eyewash and Shower Equipment" may be used as a guide in considering appropriate equipment.

The following drawings are samples of emergency eyewash and emergency shower equipment with some of the relevant ANSI Standard requirements included as a checklist. We acknowledge Guardian Equipment for the use of the drawings from their publication ANSI Z358.1-2004 Compliance Checklist. Note being an American Standard flows are in Imperial measures.

Eyewashes

Controlled, low velocity flow rinses both eyes and is not injurious to user. (Section 5.1.1)

Unit must deliver at least 0.4 gallons (1.5 liters) of water per minute for 15 minutes. (Section 5.1.6)

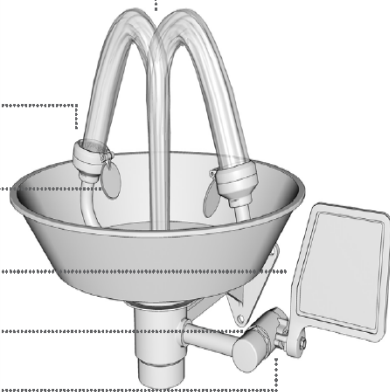
Outlet heads shall be positioned between 33" (83.8 cm) and 45" (114.3 cm) from the floor and at least 6" (15.3 cm) from the wall or nearest obstruction. (Section 5.4.4)

Protect spray heads from airborne contaminants. (Section 5.1.3)

Valve actuator shall be easy to locate and readily accessible to user. (Section 5.2)

"Hands-free" stay-open valve activates in one second or less. (Section 5.2)

Connect unit to uninterruptible water supply delivering at least 0.4 GPM. (Section 5.4.5)



LOCATION Install eye/face wash unit within 10 seconds of hazard, on the same level as hazard and with unobstructed travel path. (Section 5.4.2)

WATER TEMPERATURE Water delivered by eye/face wash shall be tepid (lukewarm). (Section 5.4.6)

TRAINING Instruct all employees in the location and proper use of eye/face washes. (Section 5.5.4)

MAINTENANCE/INSPECTION Activate eye/face wash at least weekly. (Section 5.5.2) Inspect annually for compliance with standard. (Section 5.5.5)

IDENTIFICATION Identify eye/face wash with highly visible sign. Area around eye/face wash shall be well lighted. (Section 5.4.3)

Safety Station

Connect unit to uninterruptible water supply capable of delivering required flow when all components are operated simultaneously. (Section 4.1.4, 4.5.5, 7.4.4)

"Hands-free" stay-open valve activates in one second or less. (Section 4.2)

Shower head shall be between 82" (208.3 cm) and 96" (248.3 cm) above floor. (Section 4.1.2, 4.5.4)

Shower shall provide 20 gallons (75.7 liters) of water per minute for 15 minutes. (Section 4.1.4, 4.5.5)

At 60" (152.4 cm) above floor, the water pattern must be at least 20" (50.8 cm) in diameter. (Section 4.1.5)

Easily located, accessible actuator no higher than 69" (173.3 cm) above floor. (Section 4.2)

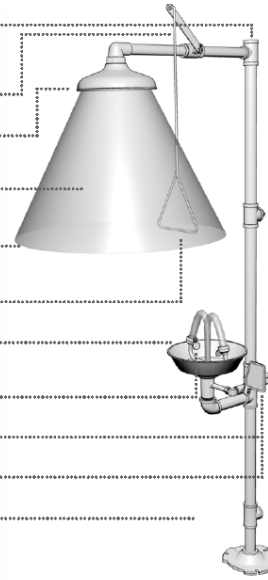
Outlet heads shall be positioned between 33" (83.8 cm) and 45" (114.3 cm) from the floor. (Section 5.4.4, 6.4.4)

Protect outlet heads from airborne contaminants. (Section 5.1.3)

Valve actuator shall be easy to locate and readily accessible to user. (Section 5.2, 6.2)

"Hands-free" stay-open valve shall activate in one second or less. (Section 5.2, 6.1.4, 6.2)

Unit must deliver at least 3.0 GPM (11.4 liters) (for eye/face wash) or 0.4 GPM (1.5 liters) (for eye wash) for 15 minutes. (Sections 5.1.6, 6.1.6, 6.4.5)



LOCATION Install safety station within 10 seconds of hazard, on the same level as hazard and with unobstructed travel path. (Section 7.4.2)

WATER TEMPERATURE Water delivered by safety station shall be tepid (lukewarm). (Section 7.4.5)

TRAINING Instruct all employees in the location and proper use of safety station. (Section 7.5.4)

MAINTENANCE/INSPECTION Activate safety station at least weekly. (Section 7.5.2) Inspect annually for compliance with standard. (Section 7.5.5)

IDENTIFICATION Identify safety station with highly visible sign. Area around safety station shall be well lighted. (Section 7.4.3)

Emergency Shower

LOCATION Install shower within 10 seconds of hazard, on the same level as hazard and with unobstructed travel path. (Section 4.5.2)

WATER TEMPERATURE Water delivered by shower shall be tepid (lukewarm). (Section 4.5.6)

TRAINING Instruct all employees in the location and proper use of emergency showers. (Section 4.6.4)

MAINTENANCE/INSPECTION Activate shower at least weekly. (Section 4.6.2) Inspect annually for compliance with standard. (Section 4.6.5)

IDENTIFICATION Identify shower location with highly visible sign. Area around shower shall be well lighted. (Section 4.5.3)

"Hands-free" stay-open valve activates in one second or less. (Section 4.2)

Shower shall provide 20 gallons (75.7 liters) of water per minute for 15 minutes. (Section 4.1.4, 4.5.5)

Water supply shall be sufficient to supply at least 20 GPM in required pattern for 15 minutes. (Sections 4.1.4, 4.5.5)

Shower head shall be between 82" (208.3 cm) and 96" (243.8 cm) above floor. (Section 4.1.2, 4.5.4)

Center of the water pattern shall be at least 16" (40.6 cm) from any obstructions. (Section 4.1.5)

At 60" (152.4 cm) above floor, the water pattern must be at least 20" (50.8 cm) in diameter. (Section 4.1.5)

Easily located, accessible actuator no higher than 69" (173.3 cm) above floor. (Section 4.2)

