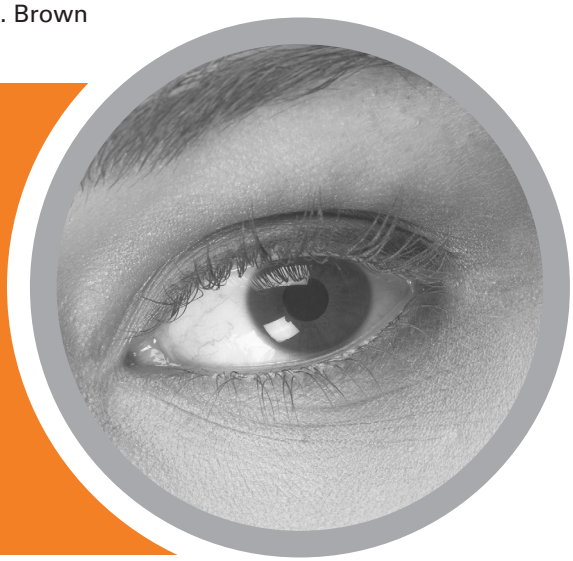
Emergency eyewash and showers

By Warren K. Brown



Before you begin
Review this information and your company policies with respect to emergency eyewash and showers. Survey your facilities for examples of areas where these devices are in place and the types in use. A couple of photographs of the units or manufacturers' information sheets can aid in your discussion with the employees.

Chemical exposures can cause serious bodily injuries. Statistics show about 20 percent of eye injuries are the result of chemical exposures. In almost all cases, the recommended first-aid measure is to immediately flood the affected area of the body with copious quantities of water for 15 to 30 minutes. Having the right type of unit in the appropriate location is the key to reducing the potential for serious bodily damage if an incident should occur. Commercially available units for the most part are easy to use and maintain.

Ask the group to identify common problems associated with these emergency eyewash stations. The answers should include keeping them accessible, clean and in good operating condition. Since they generally are used infrequently it is difficult to convince the work force to follow the guidelines.

Ask the group what an organization can do to combat this concern. The answer is that a standard maintenance procedure and frequency must be established to ensure that units are maintained and ready when needed.

Ask the group what can be done to avoid the need to use eyewash stations. These devices are reactive, in that they are used after the incident has occurred. Answer: It is important each organization's safety program address the importance of using the appropriate protective clothing and equipment, so the need to use the quick drenching devices is minimized.

Ask the group what must be done to help ensure these devices will be used when needed.
The answer is employees must be trained to recognize:

- When to use the devices;
- How to use them;
- Where they are located so they can find them when and if the need arises.

For example, these devices need to be tested on a periodic basis to ensure they function properly; and they need to be kept clean and unblocked so someone who is vision-impaired can find the device.

Ask the group to discuss guidelines for installing emergency eyewash/showers.
The standards suggest:

- The eyewash/shower should be within 10 seconds walking time from any potential hazard, and the path to the device should be as unobstructed as possible;
- The eyewash/shower should be on the same level as the hazard;
- Depending on the severity of the hazard it may be prudent to locate the eyewash/shower much closer to the hazard area;
- The standard calls for the water temperature to be tepid or lukewarm. Select the shower/eyewash that has the capability to supply the proper temperature water for the particular hazard environment expected.

Ask the group what procedures to follow after an eyewash device has been used.

- When the units are used the water and contaminant must go somewhere. Depending on the area, there could be floor drains nearby or a containment basin.
- Perform an evaluation of the expected contaminants to assure the contaminants are properly disposed of.
- In some instances, a mop may be the right answer.
- Put provisions in place to get the floor area isolated until it can be cleaned so employees don't inadvertently walk through the water and contaminant.

Ask the group to identify other issues that may need to be addressed in the workplace. Possible answers include:

- Temperature extremes, such as outside exposures that can occur during cold weather and require special units with heaters and remote controlled valves;
- Where whole body exposure to a contaminant is likely; it may be prudent to have an enclosed shower since it is likely that the exposed person will have to disrobe;
- Portable units have their special issues as well. For example, they require periodic extensive flushing and, even with additives, they have to be monitored for contamination of the enclosed water.

If there is a potential for chemical exposures to the body in your work environment, there must be provisions for providing and using proper protective equipment. Also, the proper placement of emergency eyewash/showers must be accomplished. A trained professional, with the help of your work force, should determine where chemical exposures are likely to occur, and then specify the appropriate units and installation guidelines. Use visible and uniform signs at each location to help employees know where the nearest units are located. With the units in place, train all employees at risk in how to use the units, as well as how to inspect and assure the cleanliness of the units and housekeeping required after a unit is tested or used.

Group activity
Instruct your employees to return to their respective work areas and look for potential chemical exposures that could splash their bodies. Ask them to make an initial determination of whether there is a likelihood of chemical contact, and have them suggest if there is an adequate device appropriately located or if one needs to be installed. Reconvene the group to discuss their findings, and take any deficiencies noted and fix them.

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We always strive to improve the *Safety Leader's Discussion Guide*. Your feedback can help. Please send your comments via e-mail to Safety@ohiobwc.com.

References

Web sites

- Eyewashes and Safety Showers (Purdue University): ww.purdue.edu/rem/safety/shower.htm
- Eye and Face Protection (Occupational Safety and Health Administration): www.osha.gov/SLTC/eyefaceprotection/index.html
- Eye safety at work (Prevent Blindness America): ww.preventblindness.org/eye-safety-work

Standard

- American National Standard for Emergency Eyewash and Shower Equipment, ANSI Z358.1

Articles

- Hurley, Robert. "Are your emergency eyewashes ready for action?" *Occupational Hazards*, Mar 2000, v62 n3, p65-68
- Hall, Randall. "Reverse tempering emergency equipment water." *Occupational Hazards*, Feb 2004, v66 n2, p33-34

Videos
BWC's Division of Safety & Hygiene's video library has a number of videos on eye safety. These are available for loan to Ohio employers. Order a catalog by calling **1-800-OHIOBWC** (ask for the video library), or visit our Web site, **ohiobwc.com**.