

EMERGENCY SHOWER AND EYE WASH UNITS

AFOSH STD 91-501, Chapter 19

1. Does installation of emergency shower or eyewash units, after the publication date of the standard, conform to requirements established by the standard? (Reference **19.2.**)
 - a. Have previously installed units that do not meet the criteria of this standard been evaluated by the installation ground safety and BE staffs? (Reference **19.2.**)
 - b. In areas where employees are exposed to severe hazards, are units brought into compliance with this standard? (Reference **19.2.**)
2. Do supervisors ensure that emergency showers and eyewashes are provided, inspected, tested, and maintained according to this standard and has the necessity for the unit been evaluated and documented? (Reference **19.3.**)
3. If installed, are hand-held drench hoses used only to support shower and eyewash units and not to replace them? (Reference **19.4.2.**)
 - a. If self-contained units and eyewash bottles are used, is their use approved by the installation ground safety manager and the BEE? (Reference **19.4.3.**)
 - b. If eyewash bottles are provided in areas where employees are working on extremely hazardous operations, are they used only as supplemental protection? (Reference **19.4.4.**)
4. If Mil Specs are not used when obtaining emergency shower and eyewash units, do procuring documents specify that the equipment meet or exceed ANSI Z358.1 requirements? (Reference **19.5.**)
5. Are emergency shower and eyewash units: (Reference **19.6.**)
 - a. In conspicuously identified accessible locations that do not require more than 10 seconds to reach and are within 100 feet of the corrosive substance?
 - b. Located so that the water spray does not make contact with any energized electrical circuit?
6. Is the emergency shower installed in conjunction with, or in close proximity to, the eye and face or eyewash facilities? (Reference **19.6.**)

7. Are the units connected to a supply of water that is free from contamination and equal in purity to potable water? (Reference **19.7.**)

- a. Is the delivered water temperature in a comfortable range that would not discourage use of the unit? (Reference **19.7.1.**)
- b. Are self-contained units and the water supply lines of permanently installed units protected from freezing and from sunlight or other heat sources that could cause extremes in water temperature? (Reference **19.7.1.**)
- c. Are permanently installed units and self-contained units installed in a fixed location identified with a highly visible sign and are they well lighted? Is highlighting (green and white stripes) of the unit needed to increase visibility? (Reference **19.7.1.**)
- d. Where shutoff valves are installed in emergency shower and eyewash unit supply lines, have signs or tags been installed to prevent accidental shutoff? (Reference **19.7.3.**)

8. When actuated, does the water flow remain on without the use of the operator's hands? (Reference **19.8.1.**)

- a. Is the control valve simple to operate (push/pull) and does it go from "off" to "on" in less than one second? (Reference **19.8.1.**)
- b. Is the actuating device, (pull handle, walk-on treadle, or push handle) readily accessible and easily located? (Reference **19.8.2.**)

9. Do units in remote areas, or where an individual is working alone, have an activating valve electrically connected to warning lights or buzzers positioned in occupied areas to alert personnel when the unit is activated? (Reference **19.9.**)

- a. If audible alarms or blinking lights are installed to show that the unit is in use, are they working properly? (Reference **19.9.**)
- b. In remote areas without electricity, is the buddy system used? (Reference **19.9.**)
- c. When the buddy system is used, are personnel apprised of the hazard involved, what their duties are, how to use rescue equipment, and emergency procedures that are to be followed? (Reference **19.9.**)

10. Do supervisors activate permanently installed shower and eyewash unit monthly to verify proper operation? (Reference **19.10.1.**)

- a. Are inadequately operating units repaired or replaced? (Reference **19.10.1.**)

- b. If showerheads or spray nozzles are continually clogging up, has any attempt been made to eliminate the source of contamination? (Reference **19.10.1.**)
 - c. Are units that are installed in unoccupied or infrequently used areas tested prior to commencing any operations that could expose personnel to hazardous substances? (Reference **19.10.1.**)
11. Do supervisors inspect permanently installed units weekly according to instructions in paragraph **19.10.1**? Are monthly inspections documented, reflecting the date of the test and the individual performing the inspection and/or test? (Reference **19.10.2.**)
- a. Is the fluid level of self-contained units checked monthly and changed as required by the manufacturer? Are tags or labels attached to the unit or adjacent to it reflecting the fluid change schedule? (Reference **19.10.3.**)
 - b. Are eyewash bottles maintained according to the manufacturer's instructions? (Reference **19.10.4.**)
 - c. Do installation ground safety and BE staffs inspect emergency shower and eyewash units during surveys? Do they randomly check employees to determine if they have been adequately trained in the use of emergency equipment? (Reference **19.10.5.**)
12. Are employees, whose duties expose them to conditions that may warrant the use of emergency equipment, properly trained? (Reference **19.11.**)
13. When maintenance renders emergency shower or eyewash units inoperable, are alternate measures taken to safeguard employees? (Reference **19.12.**)
14. Is the face of the emergency showerhead installed in the 82-96 inches range in height from the surface on which the user stands? (Multiple-spray units are exempt from this requirement). (Reference **19.13.1.1.**)
- a. Does the spray pattern of the emergency showerhead have a minimum diameter of 20 inches at 60 inches above the surface on which the user stands? (Reference **19.13.1.1.**)
 - b. Is the center of the spray pattern located at least 16 inches from any obstruction? (Multiple-spray units are exempt from this requirement). (Reference **19.13.1.1.**)
15. Are emergency shower actuating devices easy to locate and readily accessible to the user? (Reference **19.13.1.3.**)

- a. Are hand pull devices of the emergency shower approximately 55-69 inches above the surface on which the user stands? (Reference **19.13.1.3.1.**)
 - b. Are push handles and/or paddles of the emergency shower approximately 40 inches above the surface on which the user stands? (Reference **19.13.1.3.2.**)
 - c. Are foot treadles of the emergency shower not more than 6 inches above the walking surface? (Reference **19.13.1.3.3.**)
16. Are emergency showers tested and/or checked? (Reference **19.12.1.4.**)
17. Is a means provided for eyewash units to ensure a controlled flow of potable water or it's equivalent to both eyes simultaneously, at a pressure low enough not to be injurious to the user (e.g., 6-12 inches from the nozzle)? (Reference **19.13.2.1.1.**)
- a. If protective covers are installed to protect the nozzles from contamination, is the removal process automatic so the user only has to push the actuation handle in order to use the eyewash? (Reference **19.13.2.1.2.**)
 - b. Are units positioned with the water nozzle 33 to 45 inches from the surface on which the user stands? (Reference **19.13.2.1.3.**)
 - c. Are the actuating devices easy to locate and readily accessible? (Reference **19.13.2.1.3.**)
 - d. Is the foot treadle, if used, located not more than 6 inches above the floor? (Reference **19.13.2.1.3.**)
18. If installed, does the drench hose provide a controlled flow of water to the eyes or to a portion of the body at a reduced water pressure so the user's eyes, face, or body are not injured? (Reference **19.13.3.**)
19. Are combination units installed so all components can be operated individually from a common water supply line and also meet all the previously stated performance installation criteria for each component? (Reference **19.13.4.**)
20. Are self-contained units constructed of non-corrosive material? (Reference **19.13.5.**)
- a. Are they filled with potable water or an eye-flushing solution, either approved by the manufacturer or by installation medical services? (Reference **19.13.5.**)
 - b. Is the stored fluid protected against contaminants and temperature extremes and are instructions permanently affixed to the unit? (Reference **19.13.5.**)
21. Do eyewash bottles have the capacity to deliver immediate flushing to the eyes? (Reference **19.13.6.**)

- a. Are they filled with potable water or an eye-flushing solution, either approved by the manufacturer or by the installation medical services? (Reference **19.13.6.**)

- b. Have procedures been developed to prevent these units from being exposed to extreme temperatures and are the instructions and expiration dates permanently affixed to the unit? (Reference **19.13.6.**)