

**CAROLINA DEPARTMENT OF LABOR  
OFFICE OF OCCUPATIONAL SAFETY AND HEALTH  
RALEIGH, NORTH CAROLINA**

Standards Notice 46  
(Revision #1)

TO: OSHA Staff, Field, and Support Personnel

SUBJECT: Emergency Eye Wash and Shower Requirements

**A. Standards**

1. 29 CFR 1910.151(c) 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.
2. 29 CFR 1910.94(d)(9)(vii) Near each tank containing a liquid which may burn, irritate or otherwise be harmful to the skin if splashed upon the worker's body, there shall be a supply of clean, cold water. The water pipe (carrying a pressure not exceeding 25 pounds) shall be provided with a quick-opening valve and at least 48 inches of hose not smaller than three fourths inch, so that no time may be lost in washing off liquids from the skin or clothing. Alternatively, deluge showers and eye flushes shall be provided in cases where harmful chemicals may be splashed on parts of the body.
3. 29 CFR 1910.261(g)(18)(i) Quick operating showers, bubblers, etc., shall be available for emergency use in case of caustic soda burns.
4. 29 CFR 1910.262(pp) Wherever acids or caustics are used, provision shall be made for a copious and flowing supply of fresh, clean water.
5. 29 CFR 1910.268(b)(2) . . . Facilities for quick drenching or flushing of the eyes and body shall be provided unless the storage batteries are of the enclosed type and equipped with explosion proof vents, in which case sealed water rinse or neutralizing packs may be substituted for the quick drenching or flushing facilities . . . .
6. 29 CFR 1910.111(b)(10)(iii) Stationary storage installations shall have an easily accessible shower or a 50-gallon drum of water.
7. 29 CFR 1910.111(b)(10)(iv) Each vehicle transporting ammonia in bulk except farm applicator vehicles shall carry a container of at least five gallons of water . . . .
8. 29 CFR 1926.403(a)(6) Facilities for quick drenching of the eyes and body shall be provided within 25 feet of the work area for emergency use.

## **B. Purpose**

The purpose of this notice is to define minimally acceptable facilities and their accessibility for compliance with the requirements of the OSHA standards listed under paragraph A of this notice.

OSHA standards generally lack specificity as to the criteria emergency eye wash or shower facilities must meet to be effective. This notice specifies minimally effective requirements for emergency eyewash and shower facilities. Examples of the terms and phrases which this notice addresses are:

- 1910.151(c) "suitable facilities"
- 1910.94(d)(9) (vii) "supply of clean cold water . . . with a quick opening valve"
- 1910.261(g)(18)(i) "quick operating showers, bubblers, etc., shall be available"
- 1910.268(b)(2) "facilities for quick drenching or flushing of the eyes and body shall be provided"
- 1910.111(b)(10)(iii) "easily accessible shower . . "
- 1926.403(a)(6) "facilities. . . shall be provided"

The criteria set forth in this notice shall be accepted for compliance with any of the standards listed herein requiring quick flush or deluge systems (referred to in this notice as emergency eye wash and shower facilities) for employee protection from injurious materials. This criteria is the minimum acceptable for compliance except where other specific provisions are mentioned as acceptable in an OSHA standard.

This notice is to be used as a definitive guide for general statements found in the OSHA standards. This notice does not in any way alter the requirements of the standards where they are specifically set forth, such as the requirements for 50-gallon or five-gallon containers of water under 1910.111(b)(10). When a standard is less stringent than the guidelines set forth in this notice and an employer is engaged in activities to which the standard applies (i.e., 1910.111 Storage and Handling of Anhydrous Ammonia); if the employer's precautions meet only the requirements of the applicable standard, then no violation exists.

## **C. Interpretation**

1. **Apparatus-** The following criteria shall apply to facilities or apparatus installed for compliance with the standards listed herein.
  - a. Facilities must be provided and designated for the purpose of serving as emergency eye wash or shower facilities. These facilities must not be used for any other purpose which might inhibit their immediate use as emergency eye wash or shower

facilities. Apparatus such as hoses, buckets, spigots, etc., which are used in conjunction with other activities or processes may serve as emergency eye wash or shower facilities only if they meet the applicable OSHA standard or the requirements of this notice. Also, the use in conjunction with other activities must not diminish their accessibility or effectiveness as an emergency eye wash or shower.

- b. Facilities for emergency eye wash and showers must be provided where the hazard warrants. They shall be installed so that they may both be used simultaneously by one person.
- c. Emergency Eye Wash - Eye wash minimum physical requirements are met by use of any of the following:
  1. Fixed commercially available apparatus designed specifically for eye wash, or an apparatus of similar design and equal effectiveness constructed by the employer.
  2. A hose of adequate length and flexibility to allow the user to direct a flow of water into the eyes. A pressure-reducing, divergent flow or "spent stream" nozzle and quick opening valve (providing full on/full off control with one hand operation) located at the nozzle must be attached to the hose. NOTE: It is recommended that the nozzle be mounted at a height between 33 and 45 inches (so that both hands can be free to assist in irrigation of the eyes.)
- d. Emergency Shower - Minimum requirements are met by use of any of the following:
  1. Fixed commercially available apparatus designed specifically as an emergency shower, or an apparatus of similar design and equal effectiveness constructed by the employer.
  2. Overhead mounted nozzle which provides a deluge or other soft flow of water equipped with a quick opening valve (providing full on/full off control in less than 180\* arc) which can be operated by a person standing within the effective area of the shower.
- e. Location - All required emergency eye wash and shower facilities must be located within a distance from the point of hazardous exposure which can be negotiated in 10 seconds or less, but in no case more than 75 feet. Factors which must be considered are physical layout of work area and decreased vision and mobility which may result from employee exposures of varying severity.

- f. Water Supply/Flow Rates - All facilities utilized for compliance with these standards must provide a copious flow of potable water for at least 15 minutes. No action other than the opening of a valve may be required by the user. (Examples of prohibited devices are squeeze bottles or manually operated pumps.)
- g. Personal eye wash equipment deviating from the criteria set forth herein (squeeze bottles, neutralizing solutions, etc.) may not be substituted for the requirements set forth in this notice. However, such facilities may, at the discretion of the employer, be provided in addition to the minimum requirements of the OSHA standards.
- h. Verification of Operation - The employer shall ensure the dependability of all emergency eye wash and shower facilities through protection from freezing, deterioration, physical damage, and through appropriate inspection and maintenance. The SO or IH should ensure that the operability of all facilities is verified. Actual operation of facilities for this purpose should be by the employer or his representative.
- i. Temperature - The temperature of the water used for emergency eye wash or shower facilities must be maintained above freezing and less than 112\* F. The water should be maintained at a comfortable temperature so as not to discourage its use (60\* F. - 95\* F.).

## 2. Guidelines for Enforcement

- a. To evaluate the potential for employee exposure to eye, face or bodily contact with hazardous chemicals, the following factors must be considered:
  1. Employee use of personal protective equipment;
  2. Type and concentration of chemicals;
  3. Special guards and/or precautions intended to provide employee protection from chemical exposure; and
  4. Based upon employee job functions, the extent and type of probable exposure.
- b. Where potential employee exposure to hazardous chemical exists, the circumstances and extent of exposure shall determine the application of the following alternatives:
  1. The use of effective personal protective equipment in combination with an emergency eye wash and shower properly located shall be deemed to provide adequate minimum protection for employees. See requirements for location under paragraph C.1.e.

2. In addition to emergency eye wash and shower facilities, the employer shall ensure that adequate provisions have been established for additional emergency care of employees exposed to eye or face contact with hazardous chemicals.
- c. Where employee exposure to hazardous chemicals exists and minimum protection measures are not provided, citations may also be issued for violations of the following standards in addition to those listed under paragraph A:
  1. 29 CFR 1910-151(b) or 29 CFR 1926.50(c), a person or persons adequately trained to render first aid shall be readily available in the absence of an infirmary, clinic or hospital in near proximity to the workplace which is used for the treatment of all injured employees.
  2. 29 CFR 1910.132(a) or 29 CFR 1926.28(a), personal protective equipment for eyes, face, head, and extremities, protective clothing and protective shields and barriers, shall be provided, used and maintained in a sanitary and reliable condition wherever it is necessary by reason of chemical hazards encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.
- d. Where battery powered industrial trucks are used, the following guidelines shall apply:
  1. At construction sites and in commercial and manufacturing facilities, at locations where powered industrial trucks are parked for overnight storage and routine battery recharging only, no need for emergency facilities exists unless potential exposure to electrolyte is substantiated. Where exposure is possible (i.e., servicing batteries) the provisions of C.2.b. should be evaluated for applicability.
  2. At construction sites and in commercial and manufacturing facilities where batteries (such as industrial' truck batteries) are serviced and handled, proper eye wash and body drenching equipment shall be available regardless of the personal protective equipment required or used.

#### **D. Conclusion**

This notice is intended to provide adequate uniform interpretation and application of OSHA standards. It does not, however, alter any specific requirements of the currently effective OSHA standards. The provision of adequate emergency eye wash and safety shower facilities in no way affects the

need for personal protective devices or other necessary protective measures. Refer to Standards Notice 38 for additional information regarding injurious materials and eye protection.

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