

1) Where in the code does it mandate weekly testing?

- a. Section 5.5.2 – Maintenance (Performance and Use Requirements)

“Plumbed emergency eyewash and shower equipment shall be activated weekly for a period long enough to verify operation and ensure that flushing fluid is available.”

This weekly activation ensures that the system works (no clogs, leaks, or valve issues), that any sediment or microbial buildup is flushed, and that stagnant water is cleared from the lines.

2) Is there a way you could send the slides?

- a. The slides won't be available but the recording will be shared with you so you can utilize it to revisit the information shared during the live event.

3) With an exterior shower with the OA temp 0-degree F, is a heated enclosure required? What do you need to do about ice forming on the ground which would hamper safety personnel responding to the emergency?

- a. Yes, we would highly recommend a heat-traced shower solution. We also commonly recommend grating or another means to allow for a raised surface and water drainage to prevent slipping surfaces or freezing potential.

4) Are changes in elevation for accessing a shower acceptable?

- a. The only way I have found that we all generally agree to this being acceptable is when a low-grade ramp is utilized to minimize the potential for tripping. It's a bit of a grey area when it comes to changes in level, but so long as it isn't too extreme, we deem it as compliant.

5) Have you had any issues with deterioration of your products due to chemical additives to protect the water from legionella?

- a. No, we utilize Stainless or Galvanized piping which are not affected by such additives though I would need more information on your specific solution.

6) What are the guidelines for eyewash units in the hallways where you must leave the lab through a door to access?

- a. There are no differences in the requirements, typically doors are propped open which is just a band-aid. If done correctly the doors will be non-locking (if they need to lock, equipment must be in the room), push to open, and open in the direction of the equipment.
- 7) Can a company get written up if their eyewash and showers are not in a well-lit area but have enough signage?**
- a. Yes, signage is great but if we can't detect that signage, it's a serious issue.
- 8) Is there a building code or best practice for installing emergency fixtures in proximity to electrical?**
- a. Unfortunately, no standard explicitly prohibits placing emergency eyewashes near electrical outlets, but it's strongly discouraged based on general safety principles and is often restricted by local code interpretation or employer safety policies.
- 9) If the area that needs an eyewash has no plumbing and cannot have running water of any kind (i.e. operating room) AND there is a door in the path of travel to the outside eyewash; then what? What is your take on it? What solutions have you encountered out there?**
- a. There will always be extreme exceptions where the standard solution doesn't solve the problem, this is a great example of one and I think clear communication to the inspector detailing those extreme circumstances should suffice so long as you've clearly made an effort to comply as best as you possibly could.
- 10) We tested the water temperature at the source (eyewash) and we do not use mixers in some of the new installs. What's your take on it?**
- a. This is totally fine, so long as the water temperature remains within the compliant range, you're all set (be sure to test during more extreme months). Mixing valves are a great solution but not universal. You must have hot water available and cold, typically used in facilities where the temperature range or pressure can vary.
- 11) How often do you need to sample for legionella? What documentation do you need for a record?**
- a. I would suggest testing annually for legionella, especially if your facility's supply line and temperature fit within "rapid growth" range. That range being 77°F to 108°F, though it can survive at lower temperatures.
- 12) Should accessibility be considered for the pull handle at 48"?**

- a. 48" is right at the top of that range, unless the fixture includes a bowl that exceeds 20" from the support or wall. The only other exception I would consider is the off chance that children's height would need to be a factor, but that would be only necessary in grades 12 years and younger (very unlikely).

13) We have a client that has requested that a recirculation line be installed on the tempered water system back to the water heater to maintain a tempered water temperature within the system. Is this something you have seen in systems? I fear it could increase bacteria growth due to the constant warm temperature and contaminate the entire system.

- a. This is in fact an excellent way to set your system up, the temperatures in the supply are typically kept at a very high temperature and mixed at the emergency equipment to a lower temperature. It can be set up many ways but that high temp will kill bacteria in the line. See our 8780 or 8785, both are great options for this and much less expensive than building it yourself.

14) I am responsible for sizing water heaters to ensure temperature requirements are met for the duration of the use of emergency equipment. Should I be sizing for shower PLUS eye/face wash (23 GPM) or only shower (20 GPM)? Thank you.

- a. Depending on the equipment installed, you'd be correct to assume that you would need to supply 23 GPM to the combo unit. HOWEVER, that's just Haws. We utilize the least amount of water as intelligently as possible, while many of our competitor's unit require up to as much as 40 GPM. Check brand and manufacturer's requirements.

15) When considering supplemental, is there an alternative to the choice of Biltmore? I find them a bit dry. - Chris

- a. Many options out there for this, check with your favorite distributor for some good options. You may find Plum a decent brand.

16) With the OSHA regulation (not standard) is very limited in wording, does the ANSI STD get used by OSHA to substantiate a citation?

- a. Yes, they will cite the Z358.1 standard.

17) With the decision to install an EES/EEW unit, the main objective is when personnel are exposed to corrosives? I see many in medical installations for BB pathogens exposure or I see locations that install for exposure to foreign objects (but in this case, an EEW will be more detrimental) because the foreign object will be pushed further into the eye with the unit in action

- a. Agreed, there are many situations where an eyewash is not the solution. We must reference the SDS and follow the first aid guidelines for those hazards.

18) In order to ensure that there is the required time of flushing length, the testing should be run for the same amount of time that the flushing time is identified in the ANSI as recommended for OSHA reg?

- a. We recommend 15 minutes as standard, however some SDS sheets require a longer flush in an emergency and testing to that time length would be more ideal.

19) Traffic or road construction workers are exposed to corrosive materials; so what is your advice due to the constant movement of personnel working

- a. Drop in place solutions are ideal, there are also mobile trailer manufacturers out there as well. We suggest portable tanks with drench hose attachments for these mobile sites. Is it perfect? No. Is it better than nothing? Ya. Is setting up a 15-minute capable combination unit for construction workers that will be out of the 55-ft distance in no time reasonable? Yet, I find that there are those passionate about safety that will argue for the best and still those who will see the cost and effort and decide otherwise.

20) So CSA (Canadian Standards Association) is used to certify equipment use in the USA?

- a. Absolutely! We've been utilizing CSA for a very long time, they also utilize Z358.1 along with most of the world. We also sell our equipment in Canada.

21) For testing do I need to activate the safety shower, or can I put a "T" next to the head and flow the water into a bucket or sink?

- a. You could add a "T" however there will be a short leg of water trapped beyond that T that won't get emptied, encouraging growth via stagnation. Avoiding actual activation also prevents us from checking for function during the test.

22) How can I explain to management that we must be in compliance with the latest ANSI standard (2014). Our policies are currently aligned with the 2004. Are there any LOI's that reference the 2014 version?

- a. There is no grandfather clause in the standard, any version released prior to 2014 is no longer valid. Reach out to me if you want to discuss any further methods for this or need a reference.

23) What is the difference between an eye and facewash? When would the best application be for a facewash?

- a. The eye/face wash is the current industry standard as it covers many more situations. However, the eyewash is still a necessity as portable equipment can't supply enough water for an eye/face wash. The only difference is that one also washes your forehead and lower face.

24) How do you know if you need a safety shower vs. eyewash?

- a. Check the SDS section 4 for first aid measures. Anytime chemicals or other substances are used just double check the SDS and it will tell you what is required.

25) Many SDS do not state that the chemical is corrosive but will say flush for 15 minutes. What should be followed?

- a. I'm unaware of any that don't communicate a corrosive nature, but 15-minutes is the absolute minimum. I would cross reference your own SDS sheets with other industry SDS to cross compare.

26) Eye and/or eye/face wash spray require 6" min clearance from all obstructions in the "On" position. For the Haws models, where does the 6" clearance start? Edge of spray nozzle? From center of nozzle? The 6" clearance is technically 1/2 sphere above spray nozzles, correct?

- a. On the Haws model the clearance should be measured from the center of the flow pattern, at the point where the eyewash gauge aligns.

27) What defines the term barrier-free as some models are listed and some are not (knowing the sink setup must also be ADA compliant, for the entire assembly to be compliant)? The swing down model differences appear to be the length, but when comparing various manufacturers the length varies for barrier-free. One mfg. unit that is barrier-free may be shorter than another mfg. that isn't barrier-free. Also, length should not be the only factor, as the mounting location determines the distance from front edge of cabinet or casework to the spray nozzle.

- a. A barrier free model must meet many requirements; I also offer an ADA webinar that might interest you! The reach range for the pull rod, position of the shower, toe and knee clearance, clear floor space, etc., must all be met.

28) Do the barriers (doors) apply to eyewash and showers? We have showers outside of labs where the doors do not meet the standard.

- a. They do and equipment must either be located in the room as well or measures be taken to bring the doors back into compliance as well.

29) Due to the large number of remote, unmanned facilities we maintain, the ANSI 81 still allows us to test monthly. Will that likely change in the near future? Is OSHA considering adopting a newer edition of the ANSI standard?

- a. I'm unfamiliar with any ANSI 81 document, after a quick search I came up empty handed. Could you reach out directly to further discuss? I'd be interested in what this document is.

30) To what extent do you recommend insertion within OSHA HAZAMAT training?

- a.

31) You mentioned the booth units have to catch the run off, hence the single step up into the unit. Are all showers and washers required to have a drain

- a. No, there are no requirement for drainage to the units. However, many chemicals restrict that introduction of that chemical into local waterways and must be captured. Many facilities also use these types to prevent the hazard from contaminating other processes in their facility during the emergency.

32) I thought the units were previously, eyewash was an every week & showers were qtlly? We have mainly combo units. We should be doing them both weekly?

- a. All emergency first aid equipment (eyewash, eye/face, and shower) should be tested weekly for compliance. Reach out if you need any additional tools or advice on how to do this.

33) To your knowledge, are state and federal regs typically implemented synonymously with respect to eye wash compliance?

- a. Both Federal and local level regulations must be considered, however the local regulations do not supersede the federal regulations unless those regulations require efforts above and beyond the current federal requirements.

34) Please send a summary of the ANSI standard for emergency eyewashes in construction. I hear different opinions of why it is required: metal particles from cutting, hazardous chemicals, etc.. What triggers the use of one onsite. I always state that if the SDS states you need one then you need one. But does the ANSI standard or another OSHA standard state where we would be required to have one. For example, creating a JHA and indicating in the rare occurrences of something getting inside the eyes you need it to be rinsed out. Please elaborate for a second opinion for me.

- a. You and I are completely aligned. If the SDS says so, do it. Neither the ANSI or OSHA standards give any high level detail on when or where a unit should be placed, other than the vague language the OSHA standard provides here - "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." Just follow the SDS! It's the easiest way to quickly identify the necessity for an eyewash or shower. Metal filing particulates are another hazard altogether along with glass, immobilization of the eye is ideal. A JHA is super useful, that way you already have identified the hazards and know this task = eyewash necessity.

35) Are tepid water showers required per code/OSHA?

- a. Not in black and white, however OSHA references the Z358.1 as a tool for guidance and compliance with their own 1910.151c. So kind of... in short OSHA recommends following Z358.1 which does require tepid water as we're given so little information in the 1910 standard.

36) Portable eyewash kits for Pesticide Applications.

- a. I highly recommend looking into a 7501, which is a refillable and portable, lightweight tank that can be put into place wherever it is needed. Those chemicals if introduced to the eyes and skin, will cause various degrees of harm and should be rinsed off immediately as I'm sure you well know, and I know it's difficult to provide solutions in the areas (unless it's manufacturing) where pesticides are used. There are also small belt hung bottles for immediate use that can be utilized as supplemental eyewash equipment.

37) Please talk about The plumbed eyewash stations.

- a. I did, it was great! If you missed it go to <https://www.youtube.com/user/HawsCorp> for the recording and other great videos.

38) Do you have recommendations for an eye wash station for extremely cold regions? Do you have location overseas for purchase?

- a. Our equipment can be purchased globally and we have offices in many countries. I would highly recommend the 7501T or the 7603T, both are portable heated solutions that are ideal for extreme weather and protect the water from freezing down to -20°F or -30°C.

39) Are we required to culture eyewash water?

- a. Nope, good old clean potable water is all that is required in an eyewash or shower.

40) How to select Eye wash for the number of people at site?

- a. This is based on the facilities functions and where/when employees may be exposed to injurious corrosive or otherwise harmful materials. Often a

Hazard Assessment will need to be done to determine what is required and where.

Thank you everyone for the excellent questions! If you need anything else please let me know.

For additional questions/comments, please reach out to justind@hawsco.com