

1 Are these systems appropriate or too large for college biology+chemistry labs?

Also are they appropriate for waste water treatment plants?

Tempering systems are designed based on your particular situation. It might be best to do a tankless design which is smaller and hangs on the wall. They need a large amount of power. We do many waste water treatment plants. All regions of America.

2 Can I obtain a copy of the inspection checklist? staple@safetyrisk.com

Yes, a link is included in the email.

3 Can you list chemicals that might compound with cold water?

Unfortunately we do not have a list. What I do know is that if the chemical has a melting point above the cold water temperature and is insoluble in water, there could be some gel or slush formed.

4 Do boost pumps serving safety equipment have any particular requirements?

They need to be sized to provide the right amount of pressure, they also need to handle both shower and eyewash situations, and they need to turn on immediately upon shower use. The Haws Integrated team can assist in the proper pump selection.

5 Do the showers have to be line of sight?

The ANSI Z358.1 does not address this, but it would make sense to have the shower in line of sight of where the accident could occur so that you don't have to navigate around boundaries.

6 Do you have a written protocol for culturing eyewash water? If yes, what is the significance of slow-growing organisms? (72-96 hrs to grow)

Currently, we do not get into the chemistry of water at Haws.

7 Do you have criteria for determining eyewash stations in non-laboratory settings?

I would first start with the MSDS to determine if drenching equipment is required.

8 Does a 7 day timed automatic water drain purge count as a weekly test or PM of the eye wash unit?

Great question that could be discussed at greater length than here, as this all depends on how you interpret the standard. The question that could be raised is "how can the automatic test verify operation and that flushing fluid is available?" In theory the water could be turned off by accident but the automatic test is still doing its thing with no water available.

9 Is a text-only signage compliant with the signage standard?

The standard doesn't specifically address this. The standard states that the unit be installed in an area identified with a highly visible sign positioned so the sign shall be visible within the area served by the unit.

10 Does OSHA use the ANSI Standard?

OSHA states that a suitable facility be supplied. However on their website they will reference the standard and suggest that the showers meet the ANSI standard.

11 Does the annual testing require a full 15-minute flow test?

Yes, you will need to verify that the temperature meets the range for the full 15 minutes, so therefore the shower needs to stay on for the entire time.

12 Does the flow need to be designed so that every single emergency fixture on the loop can function at once?

Another good question. If your analysis of the area says the potential is there for all showers to be used at once, then yes. If you determine that in the area only two of the ten would ever be used simultaneously, then the system needs to be designed for two showers running.

13 Does the MSDS of the chemical you are dealing with define if you need an emergency eyewash/shower station?

Section 4 of the MSDS will specify what measures should be taken if that particular chemical is introduced to the eyes. If it requires 15 minutes of flushing by water, then an eyewash is required.

14 Does the same level mean no stairs at all?

Correct, there should be no obstructions that would cause further injury.

15 Does the simultaneous requirement for shower actuation apply to multiple stations on a individual system?

This question is similar to #12 and the same answer applies. If your analysis of the area says the potential is present for all showers to be used at once, then yes. If you determine that in the area only two of the ten would ever be used simultaneously, then the system needs to be designed for two showers running.

16 Give an example of a corporate standard that is more than the ANSI.

Some corporate standards will specify that the shower be adjacent to the potential accident area and thus eliminate the 10-second rule. Others will specify specific shower duration above the minimum of 15 minutes. I have seen some that will require enclosures for showers in areas where the temperatures could drop below 40°F.

17 How are faucet-mounted eyewashes viewed in terms of ANSI/ISEA Z358.1?

Any eyewash that can meet all ANSI Z358.1 standards in regards to its particular use, can be certified as such. Our faucet-mounted eyewash, the 7620, is certified to this standard – most faucet-mounted eyewashes are not. The eyePOD™ has 1-second activation and as with all emergency products, meets tepid water requirement when paired with a tempering valve.

18 How do you assure tepid water with a portable eyewash? Assuming it is indoors at 70 degrees air temp.

You can't assure this in portables. Mixing valves combined with hot and cold water mixed provides this assurance. In a portable, a user would not know if the water is outside the tepid guidelines.

19 How do you measure the 10-second rule? Do you have a distance conversion for 10-second rule?

The standard mentions an average person can travel 55' in the 10 seconds. The standard does say that many things should be considered with the 10-second rule. An assessment of the work area should be made concerning other potential hazards that could cause further injury.

20 How does a facility with 60-year old piping deal with rusty black water at the eyewash/showers? They are flushed weekly – and sometimes daily – but initially the water is rusty/black when units are engaged. Would all the piping have to be replaced to solve this issue?

If you are looking for plumbed-in equipment, I would have to say yes. If you want to look at systems that do not rely on these older pipes then we can look at self-contained units. They still need water, but maybe it could come from a different source.

21 How is the 10-second access rule enforced? Standard suggests 50', seems like a lot of steps with your eyes closed.

The standard does say that many things should be considered with the 10-second rule. An assessment of the work area should be made concerning other potential hazards that could cause further injury.

22 I am a licensed architect in Colorado. Are CEU's (Continuing Education Units) available for this webinar? Do you issue a certificate of attendance? Terry.Johns@D11.org

Currently we do not offer CEU's.

23 If tepid water is required, why do all eyewash manufacturers, including Haws, sell units that do not have a mixing system with them. An example is your new AXION Model 7620 eyePOD. It regulates water if it is 100 degrees or higher, but does not address cold water. In your advertising, they show this on a standard two-handle faucet?

It is possible that your ground water is within the 60°-100° range. In those areas a mixing valve is not required. All other areas that are colder would, and Haws has an extensive line of mixing valves to choose from. All products must be paired with a tempering valve to meet ANSI tepid water requirements.

24 Is the room door considered an obstruction, i.e can the shower be outside the lab room?

A door is considered an obstruction. If the chemical is not corrosive, a door can be present as long as it opens in the same direction as the path of travel to the emergency fixture.

25 Is there a cost for the ANSI testing site visit each year?

Pricing is based on your location and the number of showers you have. Get in touch with me directly and we can discuss. Casey@hawesco.com

26 Is there any restriction on having a step up into the shower, like a 6-inch lip to step up into a shower, perhaps if it had a sump?

It is my opinion that there should be a ramp for these situations. If your eyes are filled with chemicals you might not see the step and trip.

- 27 It was mentioned that we need the safety shower when we handle chemical (corrosive), but how about hot liquid streams?**
This is an interesting question. I would consult a medical professional on this one. There might be different first aid practices for heat burns as opposed to chemical burns.
- 28 Measure the diameter of the flushing fluid pattern 60 in. above the surface on which the user stands. The diameter shall be a minimum of 20 in. Is this a hard requirement for annual testing as stated in ANSI? If so how and with what is this tested?**
This can be a very wet test if you are not careful. We have made a device out of PVC pipe that is tee'd off with a horizontal pipe at the 60" height and it is 20" long. It has an extension on it so that you can be away from the shower and thus avoid getting too wet.
- 29 My eyewash is full of rust for the first 5 seconds, is this really an issue?**
I always say the first few seconds are the most important. I would find the cause of the rust and eliminate it. We do offer all stainless steel units.
- 30 OSHA still states monthly. Will this requirement change soon to weekly inspection?**
I am not familiar with the monthly requirement from OSHA. What I see on the OSHA website are references to the weekly test in ANSI. Please forward this to me should you know of another document.
- 31 Shouldn't piping be in an avoidable location?**
This would be ideal, however I have seen many installations where the piping is on the ground where they could be run over by lift trucks.
- 32 Some chem reactions are exacerbated by adding water – I suppose user needs to understand this?**
Yes, the worker who is in touch with or may come in contact with a chemical must have OSHA training as to its precautions, according to the MSDS form.
- 33 Tepid Water...what if the temperature is always 60 degrees or above, say in Florida. Do you still have to provide tepid water?**
Technically you are fine. But, I would challenge anyone to take a 15-minute shower when the water is 60°F and the flow rate is 20gpm.
- 34 What are your thoughts about a tank shower which provides tempered water?**
They are allowed per the standard. They would be classified as self contained. While we have tank showers that meet ANSI flow rates and duration, the flushing performance is not equal to that of a plumbed-in shower. Haws does offer other self-contained shower systems that would flow as if they were connected to a water supply.
- 35 What does the 30 psi mean? Is it pressure entering the shower?**
Yes. It is the unit of flowing water pressure in the required size of pipe supplying the shower. In this case, we recommend 30 to 90 psi (pounds per square inch) to operate a Haws Shower.

36 What general guidelines can you offer to a design engineer regarding when and what type of emergency equipment should be specified for a healthcare project?

Look at the MSDS for the flushing requirements. In general, hospitals usually require all stainless steel units, which Haws has.

37 What height should sign be?

There are no guidelines for this. I would say below the shower head height and above the eyewash bowl height.

38 What is this new standard implementation date?

It was released in 2009 and requires compliance immediately.

39 What's the difference between an eye/face wash and just an eyewash?

An eyewash will usually have designated streams of flow only for the eyes, an eye/face wash will have streams that will wash the eyes and most portions of the face. Manufacturers (Haws does) will normally describe in their description of the unit if it is an eye/face wash or just an eyewash.

40 When are you required to have shower system?

The MSDS will guide you on the equipment needed. Your facility and water temperatures will determine if a system is needed. Please reach out to us and we can talk you through this.

41 Why do the showers have such a high minimum pressure requirement of 30 psi?

Our flow regulators (flow controls) work properly with pressures of 30 to 90 psi. We have options for lower operating pressures including eyewash only heads and booster pumps. Our engineers can answer any flow concerns you may have.

42 Why is Cal/OSHA Title 8 still using ANSI Z358.1-1981?

I wish I had the answer to this. California is usually the leader when it comes to standards, yet their shower standard is way behind.

43 With this change to the ANSI standard, do existing eyewash, shower and drench-hose stations required to be converted and supplied with tempered water? Or are they grandfathered?

There is no grandfather clause with the Z358.1 standard.