

AS 4775 Emergency shower, eyewash and eye/face wash equipment and drench hoses FAQs

The requirement to have an emergency shower or eyewash or supplemental equipment.

Emergency showers and eye wash facilities are considered first aid/emergency response equipment. They do not prevent injury or exposure; they are the first response to exposure to a hazardous material or thermal burn.

Under the WHS Regulations (R42), persons carrying out a business or undertaking (PCBU) provide first aid equipment, worker access to facilities, and trained first aiders. While the Victorian OHS regulations are a little more obscure in their references to first aid equipment, the requirement still exists.

In Victoria and the WHS states, the guidelines in terms of what constitutes first aid equipment are set out in

- Para 154 – 156 Compliance Code - First aid in the workplace compliance code (Victoria) or
- Section 3.3 Other first aid equipment – Code of Practice (WHS)

Both the WHS Codes of Practice and the Victorian OHS Compliance Code refer the reader to AS 4775 Emergency shower, eyewash and eye/face wash equipment and drench hoses as a reference point.

What is AS 4775?

AS 4775 is a standard that has multiple purposes. It provides uniform minimum requirements for the performance, installation, use, maintenance, commissioning, and test procedures for emergency shower, eyewash, and eye/face wash equipment and drench hoses. This includes information relating to:

- a) Materials, design, and manufacturing and installation of emergency showers, eyewash equipment
- b) Watermark conformity assessment requirements (for all equipment which is subject to the NCC Vol 3 – i.e. plumbed into drinking water supply)
- c) different types of equipment (plumbed, self-contained and portable/single use)
- d) the location, use of emergency showers from a user perspective,
- e) accessibility requirements and
- f) supplementary equipment.

The standard ensures product quality, operability, and first/emergency response strategies across a wide range of workplaces.

What is the Scope of AS 4775?

AS 4775 specifies minimum requirements for the supply, installation, performance, testing, inspection, and use of —

- shower, eyewash and eye/face wash equipment for the emergency treatment of the eyes or body of a person who has been exposed to materials which can cause injuries; and
- the following supplemental equipment:
 - o Drench hoses.
 - o Self-contained (portable) equipment.

AS 4775 Emergency shower, eyewash and eye/face wash equipment and drench hoses which may be used in a wide variety of settings where hazardous materials (including chemicals, biological materials, radiological materials may be used and that the first response is to wash the contaminant off.)

AS 4775 requires the reader to read it in conjunction with the NCC Vol 3 Plumbing Code of Australia.

What workplaces require an emergency shower or eyewash facility?

AS 4775 Emergency shower, eyewash and eye/face wash equipment and drench hoses may be used in a wide variety of settings where hazardous materials (including exposure to high levels of dust (potential for eye injuries), chemicals, biological materials, radiological materials) are present or in the case of thermal burns.

Note that emergency showers should not be used for cryogenic burns because they can damage tissue.

What quantities of hazardous chemicals/materials are required before an emergency shower or eye wash equipment is required?

No designated threshold is established before installing an emergency shower/eyewash facility. The problem is not necessarily the quantity of chemicals, but the hazardous nature of the material. The faster a person can reach an emergency shower or eyewash facility, the better the chances of minimising damage and enabling a fast recovery. e.g. Dimethylmercury is a highly toxic chemical to which only a few drops can lead to a fatality.

Does AS 4775 specifically address the installation of emergency showers/eyewash facility in laboratories?

In short, NO. Emergency showers, eyewash, eye/face wash equipment, and drench hoses may be used in a wide variety of settings where hazardous materials (including chemicals, biological materials, and radiological materials) are present. AS 4775 does not provide site/workplace-specific information, as each workplace is different; the combination of hazardous materials will differ, the use of the hazardous material will differ, and the physical environment will differ. AS 4775 provides information on conditions that must be considered to ensure workers have free and unobstructed access.

The application of AS 4775 within laboratory environments is determined by AS 2982 Laboratory Design and Construction and AS/NZS 2243 Safety in Laboratories series.

Why the 10 sec rule?

The 15 m rule originally came from the ANSI Z358.1 Emergency Showers and Eyewash Standard. However, when dealing with chemical exposure, time is of the essence, and it was important to emphasise the time rather than distance.

Another consideration is that once a person has been exposed to hazardous materials (particularly chemicals in the eye), their ability to travel 15 or 16 m unaided may be limited, and they must reach the eyewash and shower equipment as quickly as possible. Emergency shower equipment and eyewash facilities aim to minimise physical damage from exposure to hazardous chemicals. According to ANSI Z358.1, 10 seconds equates to approximately 16 m.

In some situations, such as warehousing, transport depots, refuelling depots and places where other standards apply, the location of an emergency shower may be more prescriptive, e.g. AS 3780 – The safe storage and handling of corrosive substances specify that:

- a) in stores where packages are opened within 10 m of but not nearer than 2 m; and
- b) at tank transfer points (for tanker connection) within 7 m but not closer than 2 m.

Accessibility

This new section in AS 4775 guides considerations when installing emergency showers. This section, like Accessibility in AS 2982, provides a framework for developing a more inclusive workspace and meeting first aid needs.

Privacy screens

This was introduced to remove a barrier that may inhibit workers from using an emergency shower.

Drainage and disposal of discharge

One of the biggest pieces of feedback is that laboratory workers (in particular) have been discouraged from using emergency showers due to:

- a) the cost of the cleanup and
- b) the potential damage to equipment.

The bottom line is that safety and people come first. The drainage issue isn't limited to indoor showers; it also applies to outdoor showers and the potential to contaminate nearby waterways and soil. To put this in perspective, based on the required flow rate, an emergency shower will discharge approximately 1000 L over 15 minutes. For comparison, an intermediate bulk container (IBC) contains 1000 L.

The questions that were considered in drafting this section were related to:

- How to capture and contain 1000 L of contaminated waste?
- Who is responsible for cleaning up the workplace?
- How to dispose of 1000 L of contaminated water, noting that once it is collected, the contents will have to be disposed of as industrial (contaminated waste)
- What infrastructure was needed to ensure appropriate drainage?
- What did the NCC Vol 3 state?
- What are the requirements set out in AS/NZS 3500.2?

Does AS 4775 mandate the installation of floor drains?

In short, NO. What AS 4775 states is that if the decision is made to install floor drains, there are several requirements associated with the Emergency shower, eyewash and eye/face wash equipment should be installed with floor drains (connected to the equipment's trade waste drainage system), containment or other means to prevent the flushing fluid from entering adjacent rooms, corridors, stairwells, service risers or service pits.

Does AS4775 mandate the flushing of drains?

Yes. The standard requires that, where drains have been installed, that drains be flushed as part of the regular testing of emergency showers and eyewash equipment.

Supplementary equipment - Drench hoses

Drench hoses (previously called deluge hoses) are considered supplementary equipment; however, that does not mean that an emergency shower cannot be supplemented with drench hoses throughout a laboratory.

Portable single-use non-refillable units

This refers to things such as commercially prepared bottled saline. There is nothing in AS 4775 and AS 2982 that states that a laboratory cannot provide additional resources such as bottled saline to supplement plumbed eyewash equipment.

The relation between AS 4775 and AS 2982

AS 4775 is a technical specification/performance standard that also includes a user guide. It was developed with no one application in mind. AS 2982 covers the requirements for a specific application (i.e. laboratories). AS 4775 must be read in conjunction with AS 2982 and the NCC Vol 3 National Plumbing Code of Australia.

How many emergency showers and eyewash facilities do I need in a laboratory?

AS 2982: 2026 Clause 7.3.1 (a) states that *"Where hazardous materials are used, at least one emergency shower and eyewash or eye/facewash equipment shall be installed in the laboratory or in an adjoining area"*.

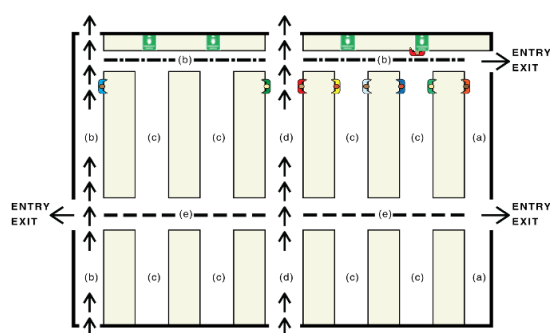
If you have a work area /laboratory, where there is no shower has been installed but there is a shower close by in a common area or adjoining laboratory, there is nothing preventing the installation of a drench hose or a bottled saline water from being install in the area as a first response.

Similarly in a large area, depending on the work being undertaken and the nature of the hazardous material that an emergency shower can be supplemented by drench hoses and bottled saline water.

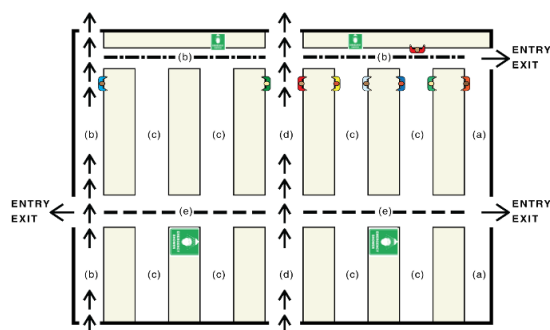
Where should emergency showers be located?

There is nothing requiring emergency showers to be located along one wall or tucked away in corners. AS 4775 does provide guidance in terms of where they should not be located i.e. in corridors. The decision the location of emergency showers is about understanding the nature of the hazardous materials being used, other hazards, the number of people in a laboratory, the size of the laboratory and layout.

The following diagrams provide a number of potential options, based on the size of the room, the work undertaken and access to services. There is no hard rule about the number or the location of the emergency showers and eye wash facilities beyond the 10 second rule. What is important is understanding the work that is to be undertaken in the area, the number of people, hazardous materials being used. Remember every environment will be different.



Option A

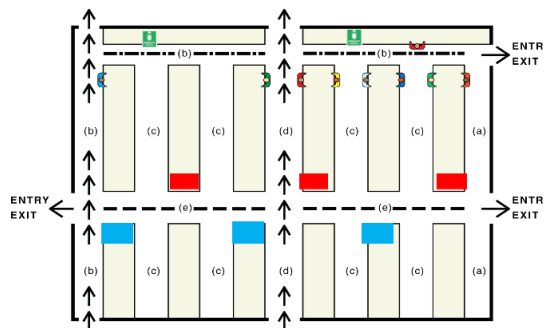


Option B

Using Figure 3.2 from AS2982 there are a number of possible configurations that could be suggested (including but not limited to:

- a) Option A row of emergency showers and eyewash facilities along one wall – although depending on the size of the laboratory potentially the time between the furthest point to the nearest shower may be more than 10 seconds.
- b) Option B may be two along one wall and two showers along the middle aisle way.
- c) Option C may be two emergency showers which are supplemented by drench hoses and eyewash facilities

However, it is strongly recommended that the placement of emergency showers, eyewash facilities and supplemental equipment is done after consultation with the laboratory users i.e. lab managers, lab staff, safety professionals and designers.



Option C

Note that this FAQs sheet does not replace qualified professional advice and everyone is encouraged to read AS 4475:2026.

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