Emergency Eyewash and Safety Shower Equipment Guideline

Section 1 - Purpose and Scope

(1) This Guideline outlines the requirements for safety shower and emergency eyewash or eye/face wash facilities within The University of Queensland (UQ) laboratories. It applies to all UQ workers (including staff, higher degree by research students, contractors, volunteers) and others (undergraduate students, visitors, clinic clients), across all UQ operations and sites who work with materials or in facilities that require emergency eyewash and safety shower equipment.

Section 2 - Emergency Eyewash and Safety Shower Equipment

(2) In Australia, the following standards apply to the installation and operation of emergency eyewash and shower equipment:

a. AS 2243.1:2021 Safety in Laboratories - Planning and Operational Aspects
b. AS/NZS 2982:2010 Laboratory Design and Construction
c. AS 4775:2007 Emergency Eyewash and Shower Equipment (access via Standards Databases through UQ Library)

(3) AS/NZS 2982:2010 Laboratory Design and Construction outlines that at least one safety shower and eyewash or eye/face wash facility shall be installed, in each laboratory where hazardous substances are used. These may be supported but not replaced with hand-held drench hoses.

(4) These devices and their activating mechanisms will be located so that the approach to them is unobstructed.

Section 3 - Recommended Eyewash and Shower Equipment

(5) It is recommended that UQ schools purchase 'Broen' emergency eyewash and shower equipment. Broen products meet the requirements of the standards mentioned above. All installation of safety equipment should be arranged through the Property and Facilities Division.

Section 4 - General Requirements

(6) Generally, the following points relate to emergency eyewash and shower equipment in university laboratories and workshops (for further information, refer to links in the Associated Information tab and elsewhere in this Guideline):

a. Disposable eyewash bottles are not acceptable alternatives to plumbed eyewash stations in UQ laboratories.

They may be utilised in addition to such stations, for example to meet specific certification requirements. In some Office of the Gene Technology Regulator (OGTR) certified spaces, where provisions for plumbing are not available, single-use packs of sterile eye irrigation fluids are permitted, provided unobstructed access to a plumbed emergency eyewash equipment is available. However, if chemicals (including cleaning and decontamination agents) are used the laboratory then access to an emergency eyewash station that meets the requirements of AS 4775:2007 is still required. If disposable eye wash bottles are provided, they must be sterile (unopened; single use only) and within their expiration date.

b. AS/NZS 2243.3:2022 generally will refer to AS 2243.2:2021 Safety in Laboratories - Chemical Aspects and Storage which recommends chemical safety requirements should be dictated by risk assessment for the intended chemicals to be used. The risk assessment should consider the type of chemical usage and volume and should be repeated if such changes.
c. Therefore, to determine what should be installed within a laboratory (i.e., a safety shower and eyewash, or an eye/face wash facility), a risk assessment of the activities and chemicals used in the laboratory should be conducted. For example, should the laboratory use chemicals which are toxic, flammable or corrosive, then a safety shower and eyewash would be warranted. However, should the usage of chemicals be limited to dilute solutions of non-toxic, non-flammable or non-corrosive substances (e.g., buffers), an eye/face wash facility should be installed. The latter situation would only apply if the consequences of a splash or spill are minimal or not noticeable.
d. However, if the chemical usage and/or volume changes, a risk assessment should be performed, particularly when corrosive chemicals are employed.
e. For example, there will always be a requirement for some chemical use in PC2 and PC3 laboratories but if the volumes are small and splash risk is low then it may be manageable with disposable eyewash bottles for chemicals not otherwise believed to be corrosive.
f. Where practicable there should be no more than 15 metres unobstructed access or greater than 10 seconds walking time to any emergency eyewash and shower where chemicals are being used.
g. Delivered water temperature must be moderately warm. Temperature greater than 38°C is harmful to the eyes and can accelerate chemical reactions. Prolonged contact with cold water can be harmful and discourage use of the equipment.
h. Emergency eyewash and shower equipment will be tested and maintained in accordance with AS 4775:2007 and also needs to be activated weekly by the laboratory occupants to flush the supply line and verify proper operations. This weekly interval may be varied on the basis of a documented risk assessment. Any such risk assessment must address the risks arising from microbiological growth and sediment build-up in the eyewash and shower system. Records must be kept indicating that the unit has been activated weekly, or in a timeframe as determined by a risk assessment.
i. Installation must meet the manufacturer's requirements and those of AS 4775:2007 including criteria for water pressure, flow rate and system testing. All installations should be plumbed to a potable water supply.
j. Stay-open valves must be in place and be operable to allow an individual to use both hands to hold eyes open or remove clothing (i.e., hand-held drench hoses support shower and eyewash units, but cannot replace them).
k. Where possible emergency eyewash units should be connected to drain piping.
l. Installing emergency equipment should not be used as a substitute for primary protective devices (e.g., eye and face protection) or for safe procedures for handling hazardous materials.
m. UQ workers must be trained in the location and proper use of emergency equipment as part of their induction.

Section 5 - Contacts for Further Information

(7) Local health and safety staff, or Health, Safety and Wellness Division:

a. email: hsw@uq.edu.au

(8) University of Queensland Chemicals Store:

a. website: UQ Science Store
b. telephone extension: 51418, 52345, or 52528
c. email: chemwaste@chemistry.uq.edu.au.

Section 6 - Appendix

Definitions

Term	Definition
UQ Worker	For the purposes of this Procedure includes: • Staff - continuing, fixed-term, research (contingent funded) and casual staff; • Contractors, subcontractors and consultants working under UQ systems and control (e.g., contingent workers); • Visiting academics and researchers; • Affiliates - academic title holders, visiting academics, emeritus professors, adjunct and honorary title-holders, industry fellows and conjoint appointments; • Higher degree by research students; and • Volunteers and students undertaking work experience.

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Enquiries Contact	Health, Safety and Wellness Division

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