Annual Fire Safety Training Module

15 March 2016, v6

Annual Fire Safety Training

Course Overview:

- This training module has been developed for workers at the University of Queensland, and forms part of the OH&S training program at UQ.

- **This module focuses on assisting University staff to:**
  - → Be familiar with UQ's Emergency Fire Safety Procedures.
  - → Know what to do in an emergency situation and/or evacuation.
  - → Participate in fire prevention strategies and identify potential hazards.
  - → Achieve compliance with the *Building Fire Safety Regulation 2008.*

Course Overview continued...

- The information provided in this module is not intended to cover all aspects of fire safety. Links have been included to address specific requirements of the legislation and University procedure.

- For more information relating to each individual building, please see the Emergency Evacuation Plans which are available online through [Archibus](#).

1. Introduction to Fire Safety and Management Training

1.1 Legislative Requirements - BUILDING FIRE SAFETY REGULATION 2008

- All occupants working at a facility shall have a fire safety induction within one month of employment and annually thereafter. Records shall be kept by UQ.

- Visitors to the facility should be provided with appropriate information on the emergency response procedures. *Lecturers should endeavour to communicate this with occupants under their care during their general introduction.*

- It should also be noted that lecture theatres and function areas have occupant number restrictions, this is essential to enable a safe evacuation from the area.

"An emergency is an event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and co-ordinated response." AS 4083-2010

1. Introduction to Fire Safety and Management Training

1.2 Types of Emergencies

- Fire or Explosion
- Bomb Threats
- Civil Disorder
- Fire in Adjacent Building
- Natural Disaster (Earthquake, Storm Damage, Flood Damage)
- Ventilation System Contamination
- Gas Leak / Chemical Emergencies
- Order by Emergency Services

1. Introduction to Fire Safety and Management Training

1.3 UQ Emergency Procedures Card

- Provide quick information.

- They're available online to download and print.

- Great for OHS noticeboards, and student areas for quick reference.
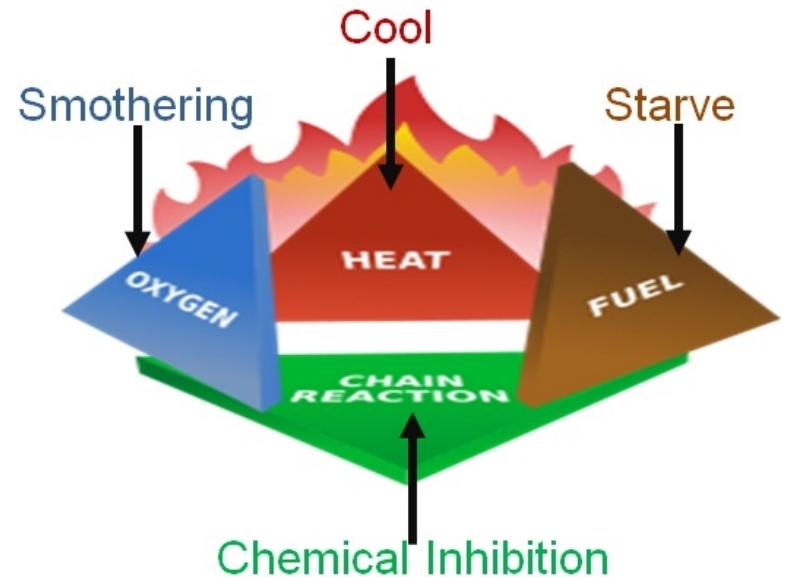
- Is readily available on the UQ Fire website .

1. Introduction to Fire Safety and Management Training

1.4 Fire Triangle

Methods of Extinguishing

- Remove all oxygen (Smothering)

- Remove the fuel (Starve)

- Remove the heat (Cool)

- Chemically interfere with
  the reaction (Chemical Inhibition)

1.   Introduction to Fire Safety and Management Training

1.5   Smoke Danger

- In nearly all fires, there is a large volume of smoke that will contain poisonous and toxic gases.

- This toxicity comes from the burning furniture, floor coverings, office equipment and other unknown materials in the affected area.

- Some materials such as Polystyrene (the panelling on most UQ freezers) give off cyanide gas and hydrochloric acid by-products when burnt.

- Smoke is responsible for more deaths and incapacitating injuries in fire situations than burns.

In any situation where there is smoke in the building, EVACUATE the building immediately.

2. First Response Fire Fighting Equipment

2.1 Fire Fighting Equipment Identification

ID SIGN	TYPICAL APPEARANCE	EXTINGUISHER TYPE (Cylinder Contains)	CLASS A Wood, Paper Textiles etc. (Normal Combustibles)	CLASS B Flammable Liquids Petrol, Paints	CLASS E Electrical Fires	CLASS F Cooking Oil, Animal Fats, Vegetable Oil
A:B(E) POWDER		DRY POWDER CHEMICAL	YES	YES	YES	NO
CO2		Co2 CARBON DIOXIDE	NO	YES	YES	NO
WATER		WATER	YES	NO	NO	NO
FOAM		FOAM	YES	YES	NO	NO
WET CHEMICAL		WET CHEMICAL	YES	NO	NO	YES

2.   First Response Fire Fighting Equipment

2.1   Fire Fighting Equipment Identification

Specialist extinguishers are installed in various laboratories across UQ to suit particular hazards:

MRI
(Non-ferrous)

Type D
(Flammable metals)

Automatic
Suppression Systems

2.   First Response Fire Fighting Equipment

2.2   Fire Extinguishers

Pull the pin at the top of the extinguisher.

Note: Hold the extinguisher by the bottom handle to allow easy removal of the pin.

Aim the nozzle towards the base of the fire.

Squeeze the handle to discharge the extinguisher.

Sweep the nozzle from side to side aiming at the base of the fire

Extinguisher training sessions are offered to staff across all the UQ Campuses and Sites.
Bookings are available through the Staff Development website.

2. First Response Fire Fighting Equipment

2.3 Fire Hose Reels

- Hose reels must be manned by two people, one to run out the nozzle and the second person to feed the hose off the reel.

- If you are by yourself don't consider using a hose reel, the risk of a hose reel malfunction is too great.

- Use valuable time to raise the alarm and commence evacuation of occupants from the immediate area.

Let the professional fire fighters use the installed hose reels to contain and extinguish the fire.

2. First Response Fire Fighting Equipment

2.4 Fire Blankets

3. Building Fire Safety Systems

3.1 Safety features within buildings

FIRE FIGHTING / PREVENTION SYSTEMS INSTALLED IN BUILDINGS :

- Fire Doors
- Smoke Doors
- Suppression Systems
- Sprinkler Systems
- Fire Hose Reels
- Fire Extinguishers
- Manual Call Points

- Fire Indicator Panel
- Smoke & Thermal detectors
- Emergency Warning & Intercom System
- Emergency Lighting & Exit Signs
- External Hydrants
- Internal Hydrants
- Lifts with Fire & Emergency Controls

FIRE SAFETY DOOR
DO NOT OBSTRUCT

3. Building Fire Safety Systems

3.2 Fire Alarm System

- Activates automatically when a field device goes into alarm.
- Alerts the Queensland Fire and Emergency Service (QFES), Security and the UQ Fire Safety Officer.
- It will also activate any emergency features of the building; shutdown air-conditioning, isolate gas, unlock required exits etc.

3.3 Emergency Warning System

- The alert tone (BEEP, BEEP, BEEP) [▶] sounds first provides time for occupants to prepare for evacuation and first responders to locate the source of alarm.
- The evacuation tone (WHOOP, WHOOP) [🔊] sounds after a predetermined time or when first responders want to step up an immediate evacuation.
- Strobes are installed in relevant areas around UQ as seen below:
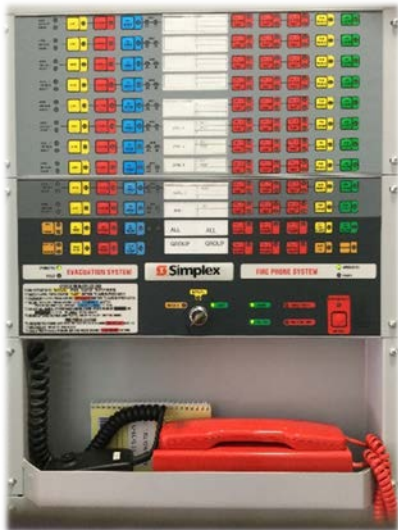
Amber will flash to signal *Alert*.

Red will flash to signal *Evacuation*.

3. Building Fire Safety Systems

3.4 Detectors

SMOKE DETECTORS	THERMAL DETECTORS

➢ Detects smoke particles.
➢ Early warning
➢ Often found in corridors, offices, lecture theatres
➢ Can also be activated by:
  - Construction,
  - Cooking fumes,
  - Steam,
  - Aerosol sprays,
  - Heaters
	➢ More suited to harsh environments.
	➢ Types include fixed temperature or rate of rise.
	➢ Does not detect smoke.
	➢ Often found in workshops, kitchens, toilets, and some laboratories.

3.   Building Fire Safety Systems

3.5   Sprinklers

- Sprinkler systems are installed in some buildings.

- They are located at ceiling level and connected to pressurised water supply.

- Help to reduce the growth of a fire, thereby increasing life safety and limiting structural damage.

3.6   Fire Rated Doors

- Designed to reduce the spread of fire or smoke between compartments and to enable safe egress.

- Some are magnetically held open by the fire panel and close only on alarm.

- At no time should they be obstructed or 'chocked' open.

FIRE SAFETY DOOR
DO NOT OBSTRUCT
DO NOT KEEP OPEN

3. Building Fire Safety Systems

3.7 Manual Call Points

- Manual call points are located in various locations throughout buildings.

- In the event of a fire or emergency situation these can be operated by pressing hard in the middle of the clear window and breaking the cover.

- This will initiate the alarm system, alert the Fire Brigade and UQ Security.

NOTE: White manual call points do not call the fire brigade. White manual call points operate internal building and security interfaces only.
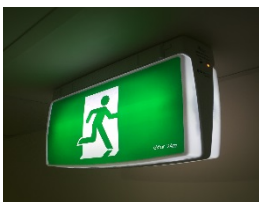
3.   Building Fire Safety Systems

3.8   Emergency Lighting

- Emergency lighting and Illuminated exit signs are installed throughout the buildings.

- The emergency lighting has a red light on the side to indicate that they are operating correctly.

- These fittings only come on when power is lost to the light, and run on batteries.

OR

Illuminated Exit Signs

- These will be white and green with the word 'EXIT' or a running man symbol.

- The older fittings do not need to be illuminated all of the time but will come on when power is lost to the building. The newer fittings must be illuminated at all time.

- All of these signs indicate the way to the fire isolated stairs and the safe way out of the building.

4. Evacuation Procedures

4.1 Emergency Wardens

- Wardens coordinate building evacuations and liaise with emergency responders.
- During emergency situations they hold authority, regardless of their normal workplace structure.
- In times of 'non-emergency' they also participate in a number of preventative measures.

Chief Warden

Deputy Chief Warden

Building Warden

4. Evacuation Procedures

4.2 Evacuation Responsibilities and Procedures
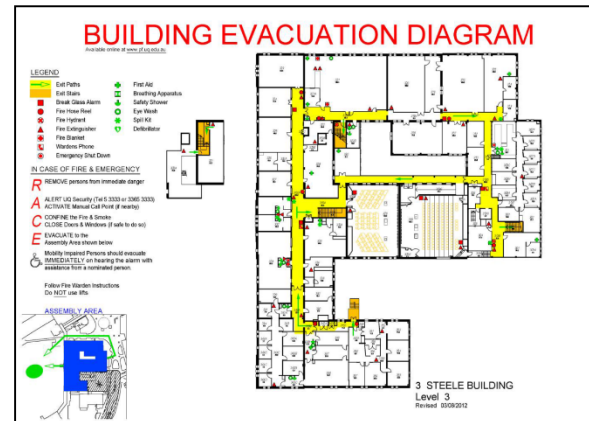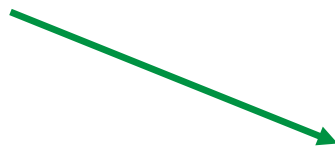
Pre-Emergency

It is recommended that you:

- Be familiar with your work areas and the location of your emergency exits.
- Know the location of nearby fire equipment and manual call points.
- Familiarise yourself with the the evacuation procedures and Emergency Assembly Areas.

4. Evacuation Procedures

4.2 Evacuation Responsibilities and Procedures

In Emergency

When you hear the Alert Tone: ▶

- Make safe any experiments or procedures that you are performing.

- Gather your essential personal belongs.

- Prepare to evacuate.

- Mobility impaired persons should commence evacuate immediately.

NOTE: Outside normal business hours (after 5pm and on weekends), evacuate immediately on alert and contact Security.

4. Evacuation Procedures

4.2 Evacuation Responsibilities and Procedures

In Emergency

When you hear the Evacuation Tone:

- Act on directions from your wardens.

- Calmly make your way to the nearest emergency exit.

- Lecturers are responsible for the safe evacuation of persons under their care.

- Close doors and windows behind you if safe to do so.

- Assemble at the designated assemble area.

- If you observe anything of concern, report it to your nearest warden.

- If you observe a real fire, phone 000 (or 0 000 for internal phones).

- Do **NOT** use the lifts for a fire emergency.

Respond to all evacuation alarms as above even if you think it's a false alarm or practice drill.

4.   Evacuation Procedures

4.2   Evacuation Responsibilities and Procedures

Persons requiring assistance:

Refuge point

- Occupants requiring assistance including mobility and vision impaired persons should discuss their needs with their supervisor and Wardens so that a Personal Emergency Evacuation Plan (PEEP) may be developed.

- Various buildings have disabled refuge areas which are indicated on the evacuation diagrams and provide a safe place to shelter.

- Alternatively refuge may be sought in designated fire stairs.

- Wardens will inform emergency services of anyone who is still in the building requiring assistance.

4. Evacuation Procedures

4.3 Evacuation Assembly Areas and Paths of Egress

Exits and exit paths are clearly indicated on the evacuation diagrams which are displayed throughout buildings in prominent areas, normally at exits, lift lobbies and foyers.

These diagrams also show:

- Fire exits and escape routes
- Manual Call Points
- Fire Extinguishers
- Emergency Shutdown
- Other Emergency Equipment

BUILDING EVACUATION DIAGRAM

3 STEELE BUILDING
Level 3
Revised 03/08/2012
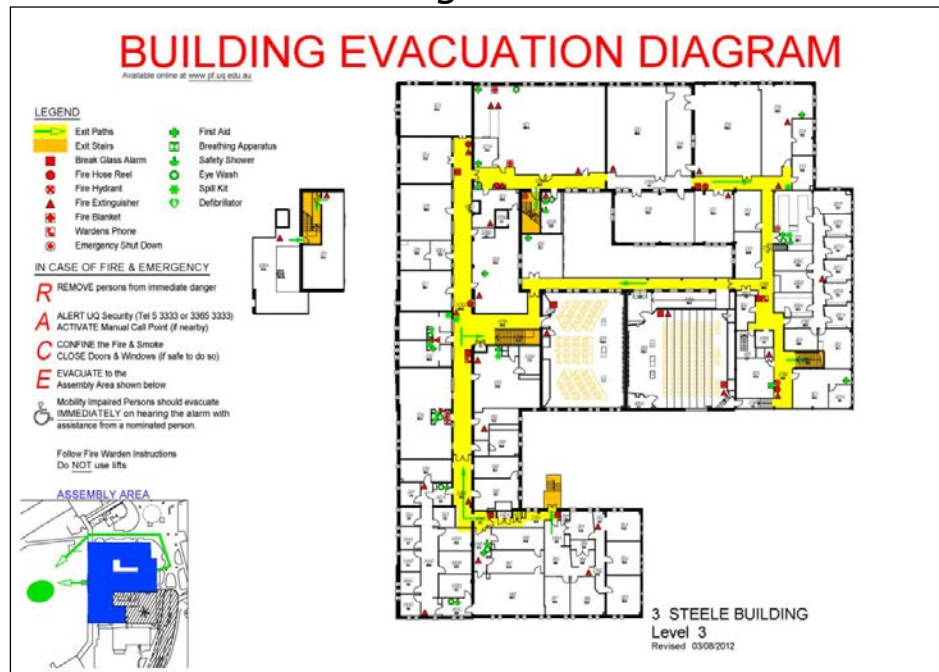
- Evacuation Assembly areas
- Evacuation Procedures
- Safety Equipment
- Emergency Spill Kit
- Emergency showers and eye washes

4. Evacuation Procedures

4.4 Emergency Response Exercises (Fire Drills)

- Fire evacuation exercises are carried out annually within individual buildings on university campuses.

- The purpose of these exercises is to educate building occupants in the correct manner of evacuating the building in the event of an emergency situation and to meet University legal obligations.

- Evacuation exercises are conducted by the Emergency Wardens under the guidance of the Fire Safety Officer.

- Buildings that have been assessed as high fire safety risk, may be required to undertake additional fire evacuation exercises and chemical emergency response drills (HAZMAT requirements).

This is a legislative requirement and participation is mandatory.

5.   Fire Prevention

5.1   Housekeeping

- Emergency Exit routes and stairways, MUST BE KEPT CLEAR of loose or moveable items including, wheelie bins, chairs, and tables etc. These are identified on the evacuation diagrams highlighted in yellow and orange.

- No items are to be stored in the fire stairs.

- Never store ANY item other than fire equipment in the fire hose cupboards and within ONE metre of any fire equipment item.

- Avoid build up of combustible waste such as paper, cardboard, polystyrene and wooden crates etc. in the office areas and exit routes.
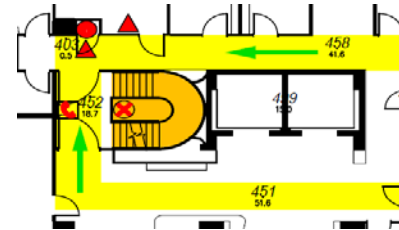
5.   Fire Prevention

5.1   Housekeeping

- Keep the use and storage of flammables and combustible substances to a minimum and only as required. Store in appropriate cupboards.

- Clean up all spills such as solvents, grease, oil, or water immediately. A delay could result in accidents.

- Fire Rated Doors and Exit Doors are not to be "chocked" open at any time.

- These Fire & Exit doors shall only be permanently held open by an electronic magnetic release and close automatically when the Fire alarm is activated.

Please report any concerns to your building wardens or the
UQ Fire Safety Officer.

5. Fire Prevention

5.2 Electrical

- Never 'piggyback' or overload power boards, extension leads or power outlets

- Never leave space heaters, sandwich toasters and other appliances with exposed heating elements unattended.

- Do not place personal heaters under desks or in other enclosed areas.

- Ensure all appliances are tested, tagged and within date.

Extension Lead Overload

Please report any concerns to your building wardens or the
UQ Fire Safety Officer.

5. Fire Prevention

5.3 Dangerous Goods and / or Hazardous Substances

- Some UQ buildings may contain Dangerous Goods and Hazardous Substances.

- The Chemical Manifest can be obtained upon request and will need to be authorised for release.

- UQ has an on-line Risk Management Database which allows for hazard identification and risk assessment of all hazards including chemicals.

- Every UQ building that houses chemicals has HAZCHEM signage.
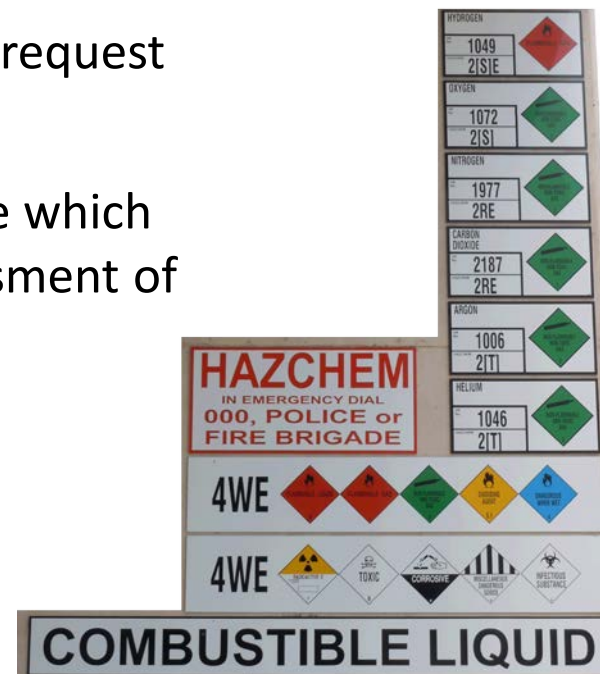
# 5.	Fire Prevention

## 5.3	Dangerous Goods and / or Hazardous Substances

- OH&S audits and Fire Safety audits are conducted in all UQ laboratories annually.

- All laboratory staff at UQ are trained in how to deal with hazardous material emergencies that may occur in their lab.

- It is strongly encouraged that laboratory staff attend one of the extinguisher training sessions held throughout the year.

- There are after-hour emergency call-out lists held at the UQ Security Office, and displayed at the front entrances (on doors), of all UQ Laboratories.

- The University of Queensland has a Crisis Management Plan in place for serious emergency situations.

- All PC2, PC3, Laser Labs, Animal Breeding Houses and Workshops at UQ are restricted areas and staff or visitors to the area must be escorted by a trained staff member.

6. Useful Links

- [Fire Safety Management – UQ PPL 2.15.02](#)

- [Fire Isolation Form – PF617](#)

- [Hot Work Permit Form – PF220](#)

- [Emergency Evacuation Plans and Diagrams](#)

UQ Fire Safety website:

- http://www.pf.uq.edu.au/fire.html

Emergency Evacuation Plans & Diagrams:

- https://archibus.uq.edu.au/archibus/uq-view-doc.axvw

Extinguisher Training Bookings:

- https://staffdevelopment.hr.uq.edu.au/course/EM0FET

Emergency Warden Training Bookings:

- https://staffdevelopment.hr.uq.edu.au/program/PEOFS

7. Contacts

UQ Senior Fire Safety Officer:

Mr David Peebles

Phone: 334-69723

Fax: 336-51900

Email: fireuq@pf.uq.edu.au

Security is available
24 hours a day
7 days a week
365 days a year

Call 3365 1234 or
1800 800 123

FOR EMERGENCIES
CALL 3365 3333

8. Assessment

- You have now completed the University of Queensland Annual Fire Safety Training module

- If you would like to revise any of the topics covered before you begin the competency assessment, please use the quick find index to navigate to a particular topic

- You will be asked a set of 20 randomly selected questions. The pass mark is 80%. You may repeat the test as many times as you require. Each time you attempt the assessment, you will be presented with a different set of questions

8.1 Assessment Location

You can return to eLearning@UQ (Blackboard) at any time to complete the assessment.

Or,

You can complete the assessment now by selecting this link:

[Start Assessment]