University of Reading

Safety Note 63

5th Edition, August 15

FIRE PREVENTION AND THE USE OF FIRE EXTINGUISHERS

1 INTRODUCTION

We must never become complacent about fire and the routine to be followed in the event of a fire incident. Fires destroy property and cost lives. On average fires in the UK cost the lives of 600 - 700 people and seriously injure 10,000 people per year.

2 UNIVERSITY REQUIREMENTS FOR TRAINING

1. Fire Prevention and Extinguisher course – Selected numbers of staff in each School/Directorate/Hall, Fire Wardens and all Area Health and Safety Co-ordinators, should attend this course.
2. Fire Warden course - All Floor/Section Wardens must attend this course.
3. Fire Evacuation Officer course – All Fire Evacuation Officers must attend this course.
4. Local induction in emergency procedures - As a minimum standard, all new members of staff (including temporary and part time staff) should receive instruction on the fire safety procedures in their specific building. Managers/Area Health and Safety Co-ordinators should ensure that staff receive basic instruction in the local fire procedures; and that they are issued with a school/department/hall safety booklet and with any relevant handouts available from Health and Safety Services.
5. Fire Safety Film – All staff should view the Health and Safety Services Fire Safety Film. This shows the basis actions to be taken in the event of fire. The film can be viewed from the following web link http://www.reading.ac.uk/internal/health-and-safety/hs-home-2.aspx

2.1 Contract and agency staff

Contractors and agency staff working on University premises must be briefed by a University representative or their supervisor on the fire evacuation procedures in individual buildings.

2.2 Fire drills

Fire drills must be held regularly (a minimum of 2 per academic year) to ensure the fire routine is operating correctly, identify problems and any equipment defects. Normally these drills are organised by the Area Health and Safety Co-ordinators within each School/Department/Hall. Further information on this subject is contained in Safety Guides 5 and 6 on the Health and Safety Services Website.

2.3 All staff should know:

- Locations of fire alarm call points.
- Routes of escape from the premises (remember lifts must not be used during a fire evacuation).
- The fire routine for the premises including the location of the assembly point.
- Who the Evacuation Officer is for their building (normally the Area Health and Safety Co-ordinator).
- The fire/floor warden for their immediate area.
- The location of the disabled "Refuge" area for wheelchair users.
- The location of the nearest fire extinguishers.

3 GENERAL FIRE SAFETY

The Causes of Fire:

- Arson
- Electrical equipment
- Electrical wiring fault
- Smoking
- Tools with a naked flame
- Gas
- Explosions
- Cooking
- Hot substances (during a process or repair to premises)
- Chemical reactions

Help Prevent that Fire:

- Identify and control hazards, assess your own work practices and review regularly
- Good housekeeping
- Maintenance of equipment (regular inspection and testing)
- Dispose of unnecessary storage and combustibles
- Maintain fire equipment and report defects immediately to your AHSC
- Question people who are strangers to your building and are not accompanied
- Keep fire exits and corridors clear of rubbish, obstructions and anything combustible
- Keep fire doors closed
- If you smell gas ventilate the immediate area, Do Not Switch On Electrical Appliances

3.1 Fire Routines

Discovering a Fire: "ACE"

(A) Alarm: Raise the alarm using the nearest fire alarm call point

(C) Call: Call the emergency services using the nearest telephone 999 system (your premises may be automatically linked to the University or Emergency Services Control but valuable time may be saved from the information you provide to the Fire Brigade)

(E) Evacuate the building using the nearest fire exit and report to the assembly point

Do not consider tackling the fire unless:

- You are trained to use fire extinguishers
- You are confident you can tackle the fire without endangering yourself or others
- Your escape route is clear and there is no danger of being trapped

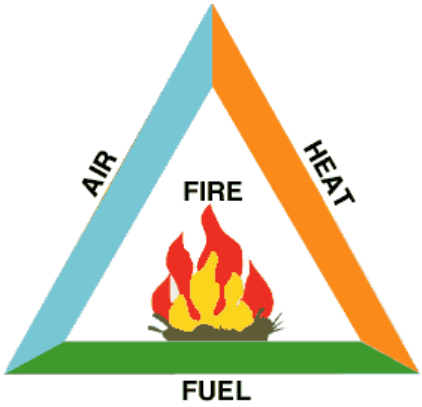
3.2 On hearing the Fire Alarm:

- Without endangering yourself, close windows and doors in the immediate area.
- Using the nearest, safe fire exit route, proceed to the Assembly Point for your premises.
- Ensure others in the area are also responding to the fire alarm (individuals who have special needs may work or reside in the area).
- If you have a designated responsibility as part of the fire routine complete those duties, without endangering yourself or delaying your own escape. This includes reporting the presence of any disabled persons in a refuge to the Evacuation Officer.
- Wheelchair users should report to the designated refuge area, you will normally be accompanied by a member of staff or a 'buddy'. Use the refuge 2-way communications equipment to keep in contact with the University Security Control room (tel. 0118 378 6300).

3.3 Fire Extinguishers

Fire Triangle:

To make good use of fire extinguishers an understanding of the fire triangle is essential. The three sides of the triangle represent the items required to cause combustion.



Oxygen - Temperature - Fuel:

Extinguishing a fire works upon the principle of removing one of these items from the fire triangle. Extinguishers work upon either removing or replacing the oxygen around the fire or cooling the temperature as with water.

Type of extinguisher and use:

All fire extinguishers are now coloured Red with a coloured band or label to identify their type:

- Black: Carbon Dioxide for use on electrical fires and small oil fires
- Blue: Dry Powder for use on oil fires, oil spillage incidents and electrical fires
- Blue: Class D Pyromet Graphite Powder for use on metal fires
- Red: Water for use on paper, wood and furniture (remember, not for electrical fires)
- Yellow: Wet chemical foam for use on commercial cooking oil and fat fires
- Cream: Foam for use on oil or petrol fires (not for use on electrical fires)
- Fire Blankets: Are provided in all kitchens and in some laboratories.
- Sand Buckets: May be used on small sodium hydride metal fires or to absorb spills of flammable liquids

Classifications of fires:

All fire extinguishers carry instruction labels that detail which classification of fire the extinguisher can be used safely on. These are the various classifications of fire:

Class A: Fires involving organic solids such as paper and wood

Class B: Fires involving flammable or combustible liquids such as petrol, oil and grease

Class C: Fires involving flammable gases

Class D: Fires involving flammable metals

Class F : Fires involving cooking oils and fats

Fires involving 'live' electrical apparatus

Multi-Purpose Extinguishers

Dry Powder (blue label/band) can be used safely on Class A, B, C fires as well as a fire involving 'live' electrical apparatus.

Foam (cream label/band) can be used safely on Class A and B fires.

Wet Chemical (yellow label/band can be used safely on Class A and F fires.

Health and Safety Services
Extn 8888 Email: safety@reading.ac.uk
Contact: Peter Lawther, Fire Safety Adviser