



Fire Extinguisher Training

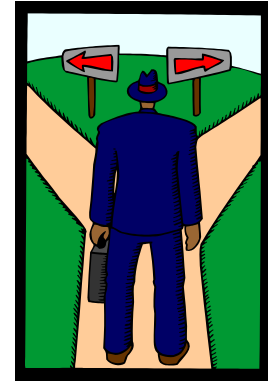
Mark Pritchard

Fire Extinguisher Training

- **Safety**
- **The Fire Triangle**
- **Classes of fires**
- **Types of extinguishers**
- **Using extinguishers**
- **Maintenance**
- **Practical**

Safety

- Only extinguish fires, if safe to do so.
- If you choose to, do it safely
- For an extinguisher to be effective, it must be used in the first few minutes of fire ignition













Safety

- **If you think the fire is getting out of control, close doors behind you and sound the alarm and evacuate the building,**

Safety

- After the event for you
 - Contact Building Manager/Building Custodian
 - Fill in a OH&S hazard exposure form – online
 - Follow up / report
 - Refill / Service Equipment
- Fire Safety Officer
 - Formal report to ANU
 - What happened
 - Recommendations / Actions
 - Procedures
 - Training

ANU - POLICIES - DBR - PROCEDURES - INCIDENT REPORTING - Microsoft Internet Explorer provided by CAS

Address: http://info.anu.edu.au/policies/dbr/procedures/incident_reporting.asp

Stop Navigation | ANU Home | Search ANU | Staff Home

ANU Policies

Quick Search: Find

Advanced Search

Policies

- Home
- By Topic
- By Type
- By Audience
- All Forms
- Feedback & Questions

Quicklinks

- Legislation
- Office of VC
- Delegations
- CAS

Procedure: Death, Injury, Exposure and Dangerous Occurrence Reporting at the ANU

Overview | Policies

Purpose:	To be confirmed		
Relevant To:	All Internal ANU		
Responsible Officer:	Director Human Resources		
Effective:	31 December 2007	Approved:	31 December 2007
Review:	10 July 2009		
Related Topics:	Health, Safety & Environment, Insurance, Occupational Health & Safety, Other (Health, Safety & Environment)		

Procedure:

For EVERY death, injury, exposure or dangerous occurrence that occurs, supervisors must ensure that:

- the web-based OHS Incident Notification form is completed and submitted,
- ANU staff and students working in another workplace (eg. CSIRO, other University etc) should report incidents to the host organisation and to the ANU via the [OHS Incident Notification Form](#).

If you experience problems with the online system or suspect that the incident was not processed, please contact ext 54439 or 55968.

within the following time frames:

- in the case of a fatality, immediately after emergency action has been taken. A phone call through to the OHS Unit on ext 52193 MUST also follow immediately,
- in the case of ANY injury, exposure or dangerous occurrence, within 4 hours.

The relevant Business Office, RACLD (http://info.anu.edu.au/bu/other_innovation_and_research/ACU/BU/BU_Lit.asp) and Health and Safety Representative (http://info.anu.edu.au/bu/OHS/Networks/Health_and_Safety_Representatives.asp) must be informed as soon as possible thereafter.

This action will initiate necessary notification and reporting to Comcare together with OHS and rehabilitation action on the incident.

The web-based OHS Incident Notification form is also used to complete and submit notification of an incident relating to radiation, gene technology or environment matters.

Contact phone numbers: OHS Unit, ext 52193; Security (after hours), ext 52249.

Copyright | Disclaimer | Privacy | Contact ANU

Page last updated: 28 October 2007

Please direct all enquiries for the Office of the Vice-Chancellor

Page authorised by: the Office of the Vice-Chancellor

The Australian National University

CRICOS Provider Number 00320C - ABN Number: 52 24063906

Safety

At it's most basic FIRE SAFETY, is based upon the principle of keeping fuel sources and ignition sources separate

What happens when you don't!





Fighting a fire

- Upon the detection of smoke and/or fire, follow the RACE plan described below:

Rescue - Rescue/Remove person(s) from the immediate fire scene/
room

Alert - Alert personnel by activating the nearest fire alarm break
glass then call the Fire Brigade 0-000 or 112 from a
mobile.

Confine - Confine fire and smoke by closing all doors in the area

Extinguish - Extinguish a small fire by using a portable fire
extinguisher

Rescue

- Tell people in the immediate area
- Move mobility impaired people
- Help people with hearing & sight difficulties
- Never enter smoke filled rooms

Alert

- **Activate alarm by breaking the glass in the red break glass panel**
- **Ring 0-000 or 112 (mobile) to confirm fire**
- **Second call to ANU Security 52249**

Confine

- **Close all door between you and the fire**
- **Slow the spread of fire**
- **Reduce the amount of smoke**

Extinguish

- **Extinguish a small fire by using a portable fire extinguisher or use to escape from a large fire.**
- **Evacuate the building immediately**
- **Wait for the Fire Brigade to arrive**

The Fire Triangle

FUEL	Any combustible material - solid, liquid or gas.
HEAT	Sufficient heat must be applied to raise the fuel to it's ignition
OXYGEN	Sufficient oxygen must be present for fire to burn

The combination of these three elements is frequently referred to as the



Essentially, Fire extinguishers put out fire by taking away one or more elements of the **“FIRE TRIANGLE”**

Classes of Fire

- 6 classes of fires
 - Class A
 - Class B
 - Class C
 - Class D
 - Class E
 - Class F

Class A

- Ordinary combustibles
 - Wood, paper, plastics etc



Class B

- **Flammable and combustible liquids**
 - **Fuels**
 - **Oils**
 - **Solvents**
 - **Chemicals**



Class C

- Flammable gasses
 - LPG
 - Propane
 - Butane



Class D

- **Combustible Metals**
 - **Magnesium burns at 2200 degrees**



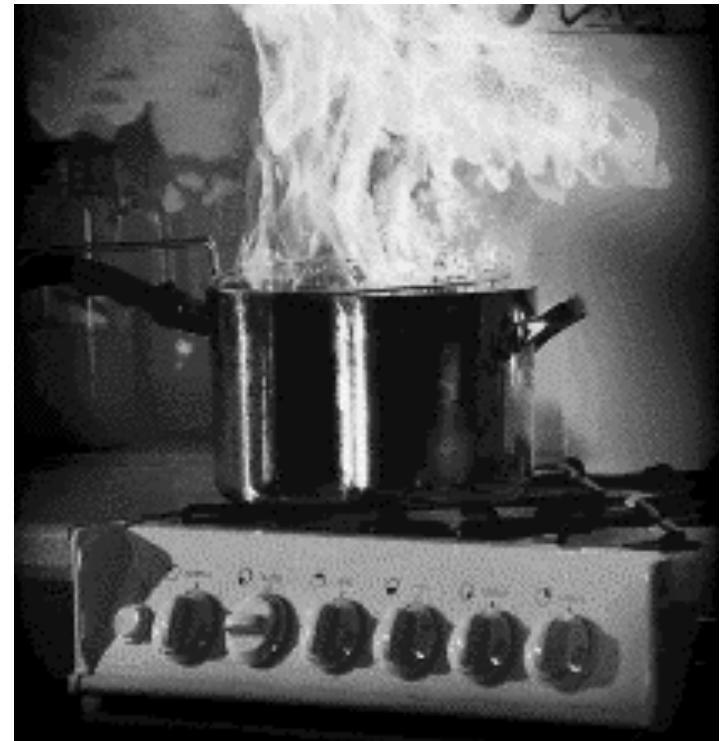
Class E

- **Electrical energised equipment**
 - Computers
 - Appliances
 - UPS
 - Switchboards



Class F

- **Cooking oils and fats**
 - Woks
 - Deep fryers
 - Kitchen cooking



Extinguishers














- **Correct type**
- **Size is sufficient**



Types of extinguishers

- Water
- Wet Chemical
- Foam
- Dry Chemical Powder
- Carbon Dioxide
- Vaporising Liquid

Portable Fire Extinguisher Guide

		Extinguishing Agent		Class A	Class B	Class C	Class D	Class E	Class F	Comments
Pre 1997	Current			Wood Paper Plastics	Flammable & Combustible Liquids	Flammable Gasses	Metal Fires	Electrically Energised Equipment	Cooking Oils and Fats	
		Water		✓	✗	✗	Use only special purpose extin- guishers and seek expert advice	✗	✗	Dangerous if used on flammable liquid, energised electrical equipment and cooking oil/fat fires
		Wet Chemical		✓	✗	✗		✗	✓	Dangerous if used on energised electrical equipment
		Foam		✓	✓	✗		✗	Limited	Dangerous if used on energised electrical equipment
		Powder	(ABE)	✓	✓	✓		✓	✗	Check extinguisher to determine if it is a ABE or BE unit as the capability is different
			(BE)	✗	✓	✓		✓	✓	
		Carbon Dioxide		Limited	Limited	✗		✓	✗	Not suitable for outdoor use or smouldering deep seated A Class Fires
		Vaporising Liquid		✓	Limited	Limited		✓	✗	Check the characteristics of the specific extinguishing agent
		Fire Blanket		Limited	Limited	✗		✗	✓	Fire Blankets may be used as a thermal barrier against radiated heat and control a fire in clothes being worn by a person

✓ = the class or classes in which agent is most effective

✗ = not recommended for these class of fires

Limited = indicates that the Extinguishant is not the agent of choice for the class of fire, but may have a limited extinguishing capability.

Fire extinguishers are a small first attack fire appliance. If you do not feel confident in operating one in an emergency situation, leave it.

**Do not put yourself at risk.
Alert others in the vicinity and contact
the Fire Brigade 000**

Using an extinguisher

- Remember the acronym PASS
- Pull the pin
- Aim the extinguisher or nozzle at the base of the fire
- Squeeze the handle to release the extinguisher agent
- Sweep the extinguisher from side to side across the base of the fire until it appears to be out

Using an extinguisher

- Watch the extinguished fire for a few moments to see if it re-ignites
- Repeat if necessary

Maintenance

- Check the test tags
 - Need to be check 6 monthly
- Check pressure gauge
 - Needs to be in the green
 - Not all have one



Maintenance

- Check to see if the safety pin and plastic tag are in place

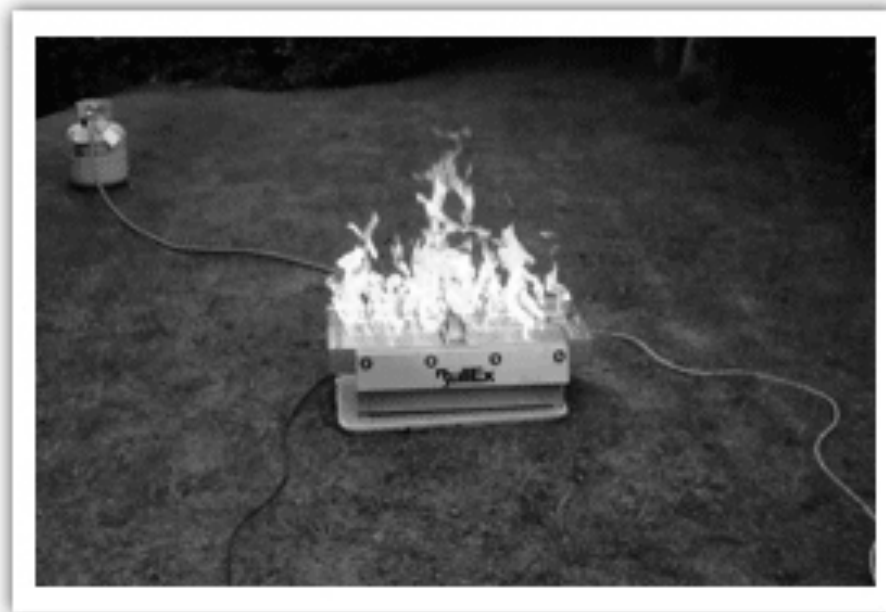


Maintenance

- If you use a fire extinguisher
- Find an empty fire extinguisher then tell or take the fire extinguisher to the Chief Warden to start the process of refilling it.

Practical

- Using the latest technology
- Replicate Class A, B, C and E fire
- 4 levels of difficulty
- Controlled environment



Objectives

- Fight a Class B level 3 fire individually
- Fight a Class E level 4 fire as a team

Temperatures of oil

Smoke Points

Sunflower	246 degrees C
Soybean	241 degrees C
Canola	238 degrees C
Corn	236 degrees C
Peanut	231 degrees C
Sesame	215 degrees C
Olive	190 degrees C
Lards	183 to 205 degrees C

An oil reaches its **flash point** about 320°C

fire point slightly under 400° C

Questions?