

**Figure 3 Emergency Categories**



Colour Code	Emergency Category	Example
Red	Fire and smoke	Any type of fire
Orange	Building evacuation	Chemical spills
Yellow	Internal emergency	Power failures
Blue	Medical emergency	Heart attack
Brown	External emergency	Truck crashing into a building
Purple	Bomb or substance threats	Hoax and real bomb threats
Black	Personal threat	Armed hold up

An evacuation may be triggered by the events shown in Figure 4. Every organisation has an obligation to ensure the health, safety and welfare at work of all employees, contractors and others in the workplace. Employers, managers and employees are obligated to take reasonable care for the health and safety of people at the place of work. Employers are also obligated to provide for emergencies.

**Figure 4 Events that Trigger an Emergency**

Type of Event	
Fire – internal	Bushfire
Gas leak	Power outage
Bomb threat	Workplace violence
Extreme climatic conditions	Earthquake
Armed intruder	Chemical spill
Explosion	Water leakage
Structural damage	Biological agent

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## Why is the Input of Stakeholders Sought?

Consultation allows stakeholders to identify hazards and risks that could lead to an emergency. Consultation also allows them to access emergency procedures and make comments and suggestions about them. Their knowledge and input lets them own the procedures and know what to do if an emergency arises.



## Seek the input of stakeholders in identifying potential emergencies.

Stakeholders may include managers, supervisors, emergency personnel, health and safety and other employer representatives, OHS committee, employees, and external emergency agencies and specialist advisors.

They have knowledge about the characteristics, use and limitations of workplace emergency procedures and emergency control equipment. Consultation with stakeholders gathers information about situations that could lead to workplace emergencies including:

- deficient or ineffective security arrangements
- potential fire hazards, smoke and other hazards
- failure to follow safe practices and non-reporting of faults and incidents
- unsafe storage and handling of dangerous goods and hazardous materials
- unsafe practices, poor housekeeping and unsafe use of electrical or mechanical equipment.



## Liaise with Stakeholders

Stakeholders are usually aware of the emergency control equipment in their area of operations including:

- communications equipment and escape routes and equipment
- fire/smoke detection, alarms, mitigation and suppression systems
- shower and eye wash, spill control kits and equipment
- personal protection kits and first aid kits,
- forcible entry tools, isolation barriers and initial response fire fighting equipment.

In any analysis of workplace emergency procedures, equipment and other resources stakeholder input provides information about the operational effectiveness of emergency control equipment and how emergency prevention principles are applied in their workplace.

Stakeholders provide useful information about hazards and risks in the workplace that could lead to an emergency. Their input helps to:

- identify potential risk exposures
- examine possible solutions and remedies
- select and implement the most appropriate solution or remedy
- evaluate and monitor the solution to ensure effectiveness

Discussion about implementation of emergency prevention solutions can help determine how much stakeholders know or need to know about how to apply emergency prevention actions and solutions.

Figure 23 Typical Risk Assessment Roster

RISK ASSESSMENT		LIKELIHOOD		HOW LIKELY IS IT TO HAPPEN AND HOW OFTEN?
Very Unlikely	Unlikely	Very Likely	Likely	Could happen at any time
U	L	VL	L	Could happen at any time
1	2	3	4	Could happen at any time
2	3	4	5	Could happen at any time
3	4	5	6	Could happen at any time
4	5	6	7	Could happen at any time
5	6	7	8	Could happen at any time
6	7	8	9	Could happen at any time
7	8	9	10	Could happen at any time

RISK RATING	
High risk, immediate action is required	1
Significant risk, action is required	2
Low risk, no action required	3

## ELEMENT TWO: Identify Options for Initial Response

Given that emergencies affect people, property and equipment it is highly desirable that the initial responses to an emergency be prepared by a team rather than an individual.

There are five main steps in preparing a response to emergencies:

1. conducting a risk analysis
2. identifying existing preventative and preparedness procedures
3. making recommendations to implement additional preventative and preparedness procedures
4. allocating responsibilities
5. devising procedures to respond to and recover from disasters.

Step 1 was presented in Element One. The next four steps will be presented in the rest of this Learning Resource.

### Why are Major Types of Emergencies Categorised?

The probability of effectively avoiding actions that may contribute to an emergency will depend on good management practices which ensure adequate:

- emergency training
- emergency equipment
- emergency systems and procedures
- responses appropriate to the category of emergency.



Ensure actions taken are appropriate to the type of emergency.

To prevent potential emergencies and to deal effectively with an emergency an organisation and its people must categorise the major types of emergencies.

Categorisation enables implementation of the actions needed to limit the particular type of emergency.

Figure 3 Emergency Categories on page 0 identified seven emergency categories. These categories were established by Australian Standard AS 3745-2002. In this classification a fire is classified as *Red*.

A fire must be further broken down into sub-classes to identify the type of fire and how to extinguish it.



## Classes of Fire

Before you can extinguish a fire safely you must be able to differentiate the different types of fire, identify the type of fire and then use the appropriate method of extinguishment. The six major classes of fire are shown in Figure 9.

**Figure 9 Extinguishing Different Types Of Fire**

Type	Description	How to extinguish
Class A – Ordinary Combustible Solids	<p>Fires involving solid materials usually of an organic nature – compounds of carbon or carbonaceous. Combustion usually occurs with the formation of glowing embers. These are the most common type of fires.</p> <p>Wood, paper, cloth, plastics, rubber, coal, carbon-based compounds</p>	<p>Water in the form of a jet or spray</p> <p>Dry powder, foam and carbon dioxide (CO<sub>2</sub>) can also be used.</p>
Class B – Flammable and Combustible Liquids	<p>Fires involving flammable liquids or liquefiable solids that are flammable, for example fats. Flammable liquids can be further divided into two types:</p> <ol style="list-style-type: none"> <li>1. Flammable liquids that mix (miscible) with water – for example, alcohol – these can be difficult to extinguish</li> <li>2. Flammable liquids that do not mix with water – for example, petrol and most conventional fuels</li> </ol> <p>Petrol, oil, paints, thinners, kerosene, alcohol</p>	<ol style="list-style-type: none"> <li>1. For flammable liquids that mix with water, a foam concentrate called ATC (Alcohol Type Concentrate) must be used and must be in a thicker solution than would be used for the flammable liquids that do not mix with water</li> <li>2. For flammable liquids that do not mix with water, foam is the most effective extinguishing agent. ATC (Alcohol Type Concentrate) or AFFF (Aqueous Film Forming Foam) Dry Powder can be used. If applied carefully water spray may be used.</li> </ol>

## ELEMENT THREE: Plan Initial Response Procedures

Emergencies are unexpected events. The initial response to an emergency is more effective when people know what to do. An organisation should have a plan of action and the procedure to follow when an emergency occurs. Those responsible for preparing the emergency plans need to verify the:

- resources required for the initial response are available
- equipment is serviceable and in the right location
- actions required are documented and meet accepted standards
- staff are trained and competent to perform the actions required in an emergency.

### How are Resources Required for Immediate Response Identified?

Resources required for an immediate response to an emergency may include:

- emergency response personnel and equipment
- first aid personnel and equipment
- emergency services personnel.



Identify resources available and required for immediate response.

Emergencies such as toxic fumes, building collapse and explosions require an immediate response. There is no time to plan and organise resources and people when the emergency happens. Every organisation must have the required equipment, emergency plans, documentation and people who are competent to use the equipment in the initial response to an emergency.

When an emergency happens it must be contained and the hazards presented by poisoning from toxic fumes, injuries from building collapse or injury caused by explosions minimised. The causes of each are shown in Figure 17.