Emergency Evacuation Plan for
- **Engineering Building**
- **'R' Block**
- **Materials Processing Laboratory**

Contents

1.0 Introduction

The plan is intended to enable a safe evacuation of all three buildings in the event of a fire or other emergency. It is in three parts:

- the alarm systems and responses to them (sections 2 - 4),
- minimising the need to use to use the plan and ensuring it can run smoothly (sections 5 & 6),
- conveying the plans existence to the people who will require it (section 7).

This plan does not cover any part of the Michael Atiyah Building which is under the control of the Department of Physics and Astronomy.

2.0 Evacuation Assembly Points

2.1 Main Building
Michael Atiyah building car park behind the main building

2.2 'R' Block
Michael Atiyah building car park behind the main building

2.3 Materials Processing Lab
Grassed area behind main building

3.0 Alarm Systems and building zones

The three buildings have separate alarm systems which are not interconnected and do not connect to an outside service: i.e. contact the fire service automatically.
The main engineering building has a voice alarm and flashing lights as a means of warning occupants to evacuate. It is activated from call point break glasses by personnel who discover a fire or by automatic detectors.

'R' Block has a similar system to the main building but has a siren instead of a voice alarm.

The Materials Processing lab has a bell system activated by call point break glasses only.

3.1 Main building

The main building is in three parts: eleven storey tower, single storey centre section, and four storey south block. The tower and south block are connected by a wide corridor running through the centre section which forms the main route through the building. There are exits / entrances on either end of the corridor. The four lab areas (hydraulics, materials, workshop, and thermodynamics) have exits into this corridor and also to their rear direct to the outside. The ground floor of south block has a compressor and boiler room which are interconnected and have two exits. The porters room has one exit but is close by the rear exit. There may be up to 100 people in these areas when student labs are running, 20 - 30 when not.

The main occupancy of the tower is on floors 3 to 10 where their are offices / laboratories. In all 50 to 60 people may be on these floors in total. Floors 1 and 2 have lecture theatres which may, infrequently, have 100 and 180 people respectively. Occupants of the lecture theatres may not be familiar with the building. A single, primary, staircase forms the only means of emergency exit from floors 10 to ground. In addition floor 8 and above cannot be reached by fire service ladders. There is a secondary staircase from floors 6 to 1 and a ramp from floor1 to ground which can alleviate strain. The tower has been divided to allow the stairwells to be pressurised to keep it free from smoke. Pressure is supplied from a fan at the foot and the top of the stairs with automatically opening vents providing ventilation.

There are two staircases in south block which are connected by corridors or fire doors on each floor to allow at least two escape routes from each room without having to change level. The corridors are not pressurised. The original escape routes from the third floor to the second still exist and are a last line of escape but are not strictly classed as an escape route. There may be up to 100 people in south block when student lab sessions are running, 20 when they are not.

3.1.1 Escaping from the tower

Occupants of the first floor lecture theatre are expected to use the primary staircase to the ground floor and use the revolving doors, doors to the side of the revolving doors, and the rear doors in the foyer at the base of the tower to escape to outside.

Occupants of the second floor lecture theatre are expected to use the secondary staircase to the first floor and then the ramp to escape to outside.

Occupants of the offices on the upper floors will use the primary and secondary staircases.

3.1.2 Escaping from south block upper floors
Occupants of all floors should use the nearest stairwell to the ground floor and escape from one of the two exits to outside. If their exit becomes blocked on one stairwell, other than by moving escaping people, they should use the connecting corridor to gain the other staircase.

3.1.3 Escaping from the centre section and ground floor of south block
Occupants are expected to use either exit from the laboratories, rooms and shops directly to outside or through the main corridor to outside.

3.2 'R' Block

'R' Block is on two levels and has a staircase at either end of it. There is also an exit near the stairs at either end. The lower level is offices and laboratory with up to 20 people using it who are familiar with the building. It is a self contained area not used as a corridor. The upper area is largely an open computer area with up to 50 people who may not be familiar with the building using them.

3.3 Materials Processing Laboratory

This single storey building is divided into a lab area at the rear with about 5 people and a student design area which can be loaded as high as 80 people for short periods. There is an exit at both ends of the building. Both are accessible from either area although the main door in inadequate as an escape due to its narrowness and a high step.

4.0 Accounting for occupants

4.1.1 Main building

It is virtually impossible to know whether a particular individual will be in a particular place at any one time due to the nature of the work in the buildings. To help account for this a tag system operates. The last person out of a tag area brings the tag with them to hand to a co-ordinator at the assembly point. Tags hang at any exit from the area they refer to.

The co-ordinator and assistants mark off tags received and also check areas that are used infrequently against the current timetable. A tag would not be expected, for instance, from a lecture theatre that should not be in use.

4.1.2 'R' Block and Design / Materials Lab.

With these areas being small and open a visual check of offices and labs should be made by a member of staff in the building.

4.1.3 People with disabilities

People with disabilities, particularly those who require wheelchairs or aids for walking or are hard of hearing, may require assistance to evacuate the building or be aware the alarms are sounding.

If such people are with a group members of the group should assist the person to evacuate and the co-ordinator should be informed of the event at the assembly point by someone sent to do so while it is happening. The co-ordinator should also be informed when the person is safely evacuated.

Colleagues should attempt to check that individuals in laboratories or offices are aware of the evacuation and are able to do so if at all possible. Assistance should be given if required. If insufficient people are available to offer effective assistance the disabled person should be taken to a room that they can easily be rescued from and the able bodied person(s) evacuated to inform the co-ordinator at the assembly point. Colleagues should not stay with a disabled person that they cannot evacuate by themselves. They will slow down the rescue procedure and it is most important that the co-ordinator is aware of a trapped person.

Colleagues should not delay leaving the building to check on a disabled person - i.e. if it involves going up the tower or to the other end of the building. Instead they should inform the co-ordinator of the potential missing person and their likely location and also inform him if the person has safely evacuated.

Disabled people trapped and alone in a building should shut themselves in a room with a telephone and dial 888 to inform the University security staff of their situation and location. 888 gets to a dedicated emergency line.

Able bodied staff in the Department will be trained to assist in evacuating a disabled person through the University's procedures when a disabled person is appointed.

5.0 Personnel with responsibilities during evacuations

During an evacuation there must be a co-ordinator who gathers information about the evacuation and the reason for it and others who bring information to the co-ordinator and ensure the building is evacuated and remains evacuated for the duration of the alarm.

These functions cannot be given to any one individual since they may not be present at the time of the evacuation. Instead they are given to groups of people, any of whom assume the responsibility.

5.1 Main building

5.1.1 Lead Fire Warden

Each member of the Department's Safety Committee (six people) can act as Lead Fire Warden. On hearing the alarm they will make their way to the alarm's main panel and determine where the alarm has been set off from. They will attempt to ascertain the severity of the situation and take the fire Logbook (by the alarm panel) to the assembly point. The one who takes the log book assumes the role of Lead Fire Warden. At the assembly point they will make themselves prominent by standing on a high point and receive information about the evacuation.

If the cause of the alarm cannot be ascertained quickly or it is known to be severe the Lead Fire Warden sends an evacuated member of staff to the Michael Atiyah building to use a phone to contact the emergency services through the University's 888 number. The co-ordinator should issue the person doing this with a sheet of paper in the log book which has instructions on what to do and say.

5.1.2 Fire Wardens

Although certain members of the Department are trained in the use of fire extinguishers any member of staff can be asked to act as a Fire Warden by the Lead Fire Warden.

The Lead fire Warden will ask members of staff to guard the doors of the building to prevent people from entering it and to guide evacuees to the assembly point. Once out of the building people should go to the assembly point in case they are reported as missing.

Some members of staff may be asked to go to stairwells in the building and attempt to acertain whether any one is trapped by calling up. They should not go up the stairs themselves.

Others may be asked to guide the fire bidgade, if called, to the building and report their arrival to the Lead Fire Warden. The Lead fire Warden should then hand their role over to another member of staff and report to the fire chief any relevant information they have. Such information includes the location of particular hazards in the building which are listed in the fire evacuation log book.

Although trained in the use of fire extinguishers Fire Wardens are not expected to fight a fire unless they are immediately on the scene, and then only at their own discretion and with assistance.

5.1.3 Other staff and students

Staff with no specific role in an evacuation can still play a part in ensuring a smooth exit from the building. On hearing the alarm lecturers and others in charge of students should immediately instruct their audience to leave the building and by what means (these are posted in both main lecture theatres and should have been read to the group on a previous occasion).

Where possible electrical power should be cut to an area before it is evacuated to prevent it becoming a hazard in its own right or as a supply to moving machinery if fire should reach the area or to emergency personnel in the building.

All other people in the Department should make for the nearest exit immediately on hearing the alarm without questioning it or stopping to collect belongings. If they have any information regarding the fire they should inform the co-ordinator or fire marshal.

5.2 'R' Block

4.1.2 Lead Fire Warden

The Lead Fire Warden for 'R' block will be any member of staff who's office or normal duties are in 'R' Block. On hearing the alarm they will ascertain the reason for the alarm and ensure both storeys are being evacuated, particularly the upper storey where there may be a large number of unsupervised students not necessarily from the Department of Engineering. The person(s) assuming the role of Lead Fire Warden will detail a responsible person to ensure no one enters the building until the area is declared clear before proceeding to the assembly point. They will then arrange for the emergency services to be called using the 888 system from a nearby telephone.

5.3 Materials Processing Laboratory

4.3.1 If the building is in use for a timetabled session

The lecturer in charge of the student group will act as fire co-ordinator and ensure the entire building is evacuated safely to the grass area at the rear of the main building. They will arrange for the entrances to be manned to prevent people entering the building and for the emergency services to be called from a 'phone in the main building or 'R' Block using the 888 number.

5.3.2 If the building is not in use for a timetabled session

Any person in the building should check all areas to ensure everyone is accounted for and then evacuate. The building's alarm should be set off to warn people against entering the building. Then call the emergency services. If enough people are available have them man the doors to prevent people entering. Inform the Departmental Safety Officer or chief technician in the main building.

The person discovering the reason to evacuate should report what was found to the emergency services when they arrive.

6.0 Fire log books

Fire log books are kept for all three buildings. Any person likely to act as evacuation co-ordinator should be familiar with their contents and location.

Each book will contain the location of hazards the emergency services may need to know about. This includes, chemical cupboards, gas bottle stores, services such as gas and electricity, etc. In the main building hazards should be listed against the zone they are in to check whether they are directly threatened by the fire, since the zone where the alarm was activated should be known.

There will also be a list of instructions for the co-ordinator to follow and for anyone sent to summon the emergency services.

In addition log books may contain a plan of the building with designated zones, a list of tags and the area they serve and a current timetable of rooms allocated for use by central timetabling. It will not cover rooms booked on a daily basis.

7.0 Managing the Fire Plan

6.0.1 Departmental Safety Inspections and individual responsibility
One of the functions of the Departmental Safety Inspections is to ensure that fire escape routes are kept clear of anything which may block them and particularly which may be a source of combustion.

While the inspections can highlight persistent problems 'one off' situations may not necessarily be picked up. Individual staff should be aware not to block gangways or leave combustibles in them or to prop open fire doors for longer than is strictly necessary (i.e. open each set of doors when you get to them and close them when you have gone past rather than opening all doors to create a clear run and only closing them when the work is finished and the trolley back in storage).

7.0.2 Use of corridors and stairwells
Corridors and stairwells should be kept as sterile as possible (no combustibles). They should not be used to store items in transit - furniture, rubbish bags and boxes.

Furniture intended for use in corridors and stairwells must be of an approved type. This includes chairs, tables, notice boards and wall hangings.

7.0.3 Alarm system testing and test evacuations
The alarm system in each building should be checked at weekly intervals by setting it off from a call point. The tester(s) should ensure that the alarm can be heard from all parts of the building.

In the case of the main building the alarm should be set to its test mode. For 'R' Block and the Design & Processing lab notices should be posted on the door stating when the alarm is to be set off and its duration, with a proviso that if it goes on for longer than the stated time (a matter of seconds) to treat it as a real emergency.

Test evacuations should be carried out a minimum of once a year with warning.

7.0.4 Updating the fire log books
The Departmental Safety Officer is responsible for ensuring the fire log books are kept up to date. He should be informed of any new installations involving hazards that the emergency services should be warned of via the stores or the staff member responsible for the installation.

8.0 Providing building users with information

8.0.1 Departmental Safety Manual

The main source of information regarding how to react on discovering a situation requiring an evacuation of the building or on hearing the alarm is the Departmental Safety Manual which is updated annually and issued to all members of the Department.

8.0.2 Notices

Notices are posted in lecture theatres for lecturers to read out to groups they have not lectured to before immediately prior to giving the lecture. This allows people not familiar with the building to be aware of what the alarm is and the escape route.

Seminar rooms and other areas where groups may gather do not have such notices but the leader is expected to inform groups greater than five in number of the escape route from the room and building.