

# UNIVERSITY OF OXFORD

## FIRE RISK ASSESSMENT

**Building :** Mathematical Institute,  
Andrew Wiles Building

**Postal Address :** Radcliffe Observatory Quarter  
Woodstock Road  
Oxford  
OX2 6GG

**OUED Building Number:** 550

**Last Reviewed:** 10/1/2023

**Assessor :** Keith. Gillow

This is a new building completed in Summer 2013. Detailed additional information is contained in the Hoare Lea & Partners fire strategy document (v7 4/1/2013) and the CDF ventilation document held by OUES. The fire strategy for the building was designed and approved in conjunction with the Fire Service, University Fire Safety Officer and the University insurers.

# FIRE HAZARDS

Appendix 1

- ❑ Identify sources of ignition, fuel, and oxygen
- ❑ Determine whether fire safety provisions and controls are in place to minimise the risk
- ❑ Record the assessment, and any significant findings/concerns requiring further advice and/or action

## Flammable Liquids (storage and use)

*In particular*

- Compliance with University Policy Statement S1/05 Storage of Flammable Liquids
- Distillation
- Decanting

N/A

## Flammable Gases (storage and use)

*In particular*

- Compliance with University Policy Statement S6/01 Acetylene
- Locations of acetylene cylinders to be recorded
- Separation of toxic and corrosive gases from all other gases
- Separation of fuel gases from oxygen (3m distance or fire wall between)
- Separation of full cylinders from empties
- Segregation of different gases whether full or empty
- Identification of gas types in rooms (signage on doors)
- Method of storage (internal and external)
- Locations of any fuel gas canisters (e.g. camping gas) stored in laboratories must be recorded

N/A

## Chemicals (storage and use)

*In particular*

- Separation of acids and flammables
- Separation of reactive substances
- Separation of pyrophoric materials
- Inappropriate storage (e.g. inside fume cupboards)

N/A

## Equipment running overnight

*In particular*

- Compliance with the requirement of University Policy Statement S4/01 Unattended Operation of Apparatus and Equipment

None (although there are standard Desktop PCs, server and other IT equipment run 24x7x365 as they are designed to do)

# FIRE HAZARDS

Appendix 1

<b>Soldering/Brazing/Welding/Grinding/Heatguns/Hot Plates</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Torches securely fixed</li><li>• Proximity of flammable vapours</li><li>• Heat guns</li></ul> <p>N/A</p>
<b>Portable Electrical Equipment</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Portable Appliance Testing arrangements to be recorded</li></ul> <p>Yes - done by FM staff</p>
<b>Cooking Equipment</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Cooking equipment located within escape routes to be recorded</li></ul> <p>There is a catering contractor kitchen on the mezzanine floor. There are 15 local kitchenettes within the office areas. Some of these contain a built in microwave.</p>
<b>Smoking</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Any problems complying with the University Statement of No Smoking Policy</li></ul> <p>None</p>
<b>Naked flames (Use of)</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Sterilisation methods</li><li>• Identify specific procedures</li><li>• Are rules imposed for such activities?</li><li>• Use of camping stoves on fuel gas cylinders</li></ul> <p>N/A</p>
<b>Hot work</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Are permit/permission arrangements in place?</li></ul> <p>N/A</p>

# FIRE HAZARDS

<b>Arson (Areas at risk)</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Biffa bins, waste skips etc. in close proximity to buildings</li><li>• Open windows, insecure enclosures</li></ul> Bins are within the locked bin store. Ground floor windows can only be opened a few inches
<b>Lasers</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Beam containment procedures/beam stops</li></ul> N/A
<b>Others</b>

- ❑ Identify those at risk if there is a fire
- ❑ Record your findings
- ❑ Note any particular issues or concerns requiring further advice and/or action

<b>Persons at work alone and/or in isolated areas</b>
<p><i>In particular</i></p> <ul style="list-style-type: none"> <li>• Their circumstances</li> <li>• Their activities</li> <li>• In event of fire or alarm conditions, do they know what to do?</li> </ul> <p>Generally building is busy although staff have 24 hour access so could be in alone. All offices have a phone should assistance need to be called.</p>
<b>Persons who are unfamiliar with the building</b>
<p><i>In particular</i></p> <ul style="list-style-type: none"> <li>• Instructions to visitors</li> <li>• Activities involving members of the public</li> <li>• Management arrangements for their safe evacuation</li> </ul> <p>Visitors report to reception and the person they are visiting is called to meet them. Longer term visitors have improved induction in the new building. The new building has a large mezzanine teaching floor that can also be used for conferences and other events for none members. Such events are managed by the events and FM teams in order to ensure appropriate risks are considered in advance and non-members given appropriate instruction and guidance should an evacuation be required.</p>
<b>Persons with disabilities (including mobility, hearing or vision impairment)</b>
<p><i>In particular</i></p> <ul style="list-style-type: none"> <li>• Establishing individuals needs</li> <li>• Identifying those requiring assistance with evacuation</li> <li>• Management plan for safe evacuation</li> <li>• Personal emergency evacuation plans (PEEPs)</li> </ul> <p>No significant staff issues. There are evac chairs within each stair core and disabled refuges with yellow call points within each stair core fire safe landing. If the fire alarm is activated the lifts return to the ground floor and open at the rear into the fire safe stair core landing.</p>
<b>Other persons who may have reason for not being able to leave the building quickly</b>
<p><i>In particular</i></p> <ul style="list-style-type: none"> <li>• Where activities have to be carefully terminated</li> <li>• Where equipment needs to be made safe</li> <li>• Where persons need to shower and/or change clothes</li> <li>• Other situations where evacuation may be delayed</li> </ul> <p style="text-align: center;">N/A</p>

## Persons employed or controlled by other organisations occupying other parts of the same building

*In particular*

- Co-ordination of response to an emergency situation
- Communication arrangements between parties

Whilst the building is almost entirely occupied by the Mathematical Institute there are OUES FM staff based in the building who provide service to the department as well as overseeing contract caterers working in the mezzanine outlet and contract cleaners who work overnight. There is also an OUSS ROQ security room on the corner of the building. There are regular meetings between the department and OUES FM to coordinate activities in the building. In due course there will also be an ROQ site management committee for wider coordination and consistency across the site.

# DETECTION AND WARNING

- ❑ The fire alarm and detection provision, the choice and method of detection, together with the electrical configuration of the fire alarm system is a corporate responsibility. Any concerns about the fire alarm and detection system must be recorded and advice sought from the University Safety Office

<b>Is the fire alarm clearly audible to persons in all parts of the building?</b>
<ul style="list-style-type: none"><li>Record any areas where audibility may need checking</li></ul> <p>Yes</p>
<b>Are there warning devices/procedures in place to alert persons working in a noisy environment, insulated rooms, on roofs or in remote areas?</b>
<ul style="list-style-type: none"><li>Record locations and the provisions in place</li></ul> <p>N/A</p>
<b>Are there warning devices/procedures in place to alert persons with a hearing or vision impairment?</b>
<ul style="list-style-type: none"><li>Record provisions in place</li></ul> <p>No</p>
<b>Do all persons know how to recognise the fire alarm sounders?</b>
<p>Yes</p>
<b>Do any fire alarm call points (break glass units) need hammers to break the glass?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Identify locations</li><li>Are hammers provided</li></ul> <p>No</p>
<b>Are any fire alarm devices compromised?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Detectors masked with covers</li><li>Break glass units obscured or difficult to access</li></ul> <p>No</p>

# FIRE FIGHTING

<b>Are all fire extinguishers provided appropriate to risks, clearly visible, unobstructed and readily available for use?</b>
Yes
<b>Are fire blankets provided in areas where a contained flammable liquid fire could occur?</b>
Yes
<b>Does the building have a dry riser facility for fire service use?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Location</li><li>• Is the riser checked/inspected?</li></ul> Yes
<b>Is the building provided with fixed hose reels?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Record locations</li></ul> No
<b>Is the building provided with a sprinkler system/misting system/ or gaseous suppression system</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Record areas covered</li><li>• Is there a maintenance contract in place?</li></ul> There are some sprinklers at mezzanine level



# ESCAPE ROUTES

- ❑ The structural protection of escape routes, the number of escape routes provided, and fire stopping to protect these elements is a corporate responsibility. Any concerns about structural protection must be recorded and advice sought from the University Safety Office.

<b>Are escape routes and stairways (both internal and external) free from obstruction and free from trip or slip hazards?</b>
Yes
<b>Can all final exit doors, and doors subdividing corridors be opened easily without hindrance if there is an emergency?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Can doors be opened for escape purposes without the need to use swipe cards, fobs, key pads or keys?</li></ul> Yes (outgoing only, some require a door release button to be pressed)
<b>Do all electronic locks fitted to escape doors fail safe to an unlocked condition upon loss of power supply?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• If not, can the door still be opened mechanically by a lever or knob?</li><li>• Are doors with 'push to open' switches or buttons also provided with a green emergency break glass unit to isolate the power supply if the switch or button fails?</li></ul> No, battery backup holds door locked but there is an emergency BGU too
<b>Are all fire resisting or smoke stop door leaves sound?</b>
<i>In particular - Note any</i> <ul style="list-style-type: none"><li>• Perforations, edge damage or twisting</li><li>• Do closing devices operate properly?</li><li>• Are smoke seals, intumescent strips and hinges in good condition?</li><li>• Do all doors close properly into their frames?</li><li>• Do any door leaves drag on the floor?</li></ul> Yes
<b>Do all fire-resisting doors held open by electro-magnetic devices connected to the fire alarm system operate satisfactorily when the system is activated?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Do selectors work properly where fitted on double-leaf doors?</li><li>• Are doors kept free from obstruction?</li></ul> Yes

# ESCAPE ROUTES

**Do any dampers, shutters, or vents, which are connected to the fire alarm system, operate satisfactorily when the system is activated?**

Yes

Following a visit in 2022 from the approved Estates fire damper service tests, they have identified 8 x fire dampers that have been propped open. In September 2022, FM/Estates/contractors/fire engineers & officer have agreed to leave the fire dampers propped open as they are redundant in use. Full details are available within the Estates report. In addition the fire engineer and fire officer visited site and further commented: There is no or low combustible material in the air handling plant room so there is limited chance of a fire taking place and spreading. Also there is a sprinkler system in the plant room Mechanical Dampers. are fitted on the extract entrance compartmentation to the plant room.

**Have maximum occupancy numbers been determined for all lecture theatres and seminar rooms that are used to hold more than 60 persons?**

*In particular*

- Compliance with University Policy Statement S11/01
- List specific space numbers and their permitted occupancy number for all rooms used to hold more than 60 persons
- Are measures in place to ensure occupancy levels are not exceeded

Yes

# LIGHTING

<b>Are all internal escape routes adequately lit?</b>
Yes
<b>Are all external escape routes and stairways provided with artificial lighting?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• Can the lighting be immediately turned on when required?</li></ul> Yes
<b>Is emergency lighting provided to escape routes, and in all areas devoid of natural light?</b>
Yes

# SIGNS AND NOTICES

Appendix 7

<b>Are exit, fire exit and directional signs appropriately located, and do they conform to the (Signs &amp; Signals) Regulations – that is pictograms with or without text, but not text only?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Compliant with University Policy Statement S9/07 Safety Signs</li></ul> Yes
<b>Are all signs and notices adequately illuminated with artificial lighting and clearly visible?</b>
Yes
<b>Are fire action notices located at every fire alarm break glass unit? Do they indicate the correct address of the building, and the correct assembly point?</b>
Yes
<b>Are all fire rated doors provided with keep shut, keep clear or keep locked notices?</b>
Yes
<b>Are all final exit doors provided with external keep clear notices?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Doors that could be obstructed by bicycles, parked vehicles, bins or skips</li></ul> Yes
<b>Are all fire extinguishers provided with contents information and fire-type suitability notices?</b>
Yes
<b>Is the fire alarm control panel provided with a zone plan or fire alarm device location plan? Are the plans up to date?</b>
Yes
<b>Are all areas designated as refuges for disabled persons kept free of obstructions and provided with clear signage?</b>
Yes

# TESTING AND MAINTENANCE

Appendix 8

<b>Is the fire alarm system tested every week?</b>
Yes
<b>Can all call points (break glass units) be operated by a test key?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>• List any break glass units that do not have a test key facility</li><li>• Location of any break glass unit fitted in such a way that a test key cannot be inserted</li></ul>
Yes
<b>Is the fire alarm system maintained on a quarterly basis by a competent contractor?</b>
Yes
<b>Are records of fire alarm tests, fire drills, maintenance visits and any repairs, and any unwanted activations properly kept in a log book?</b>
Yes
<b>Are all fire extinguishers and fire blankets regularly checked and maintained by a competent contractor?</b>
Yes
<b>Is the emergency lighting regularly maintained by a competent person or contractor, and records kept in a log book?</b>
Yes

# INFORM, INSTRUCT, TRAIN

<b>Is there a sufficient number of persons available able to read the fire alarm control panel and immediately check the location of the alarm activation?</b>
Yes
<b>Is there a sufficient number of persons available who know how to operate the fire alarm control panel?</b>
Yes
<b>Is a fire drill organised at least once a year?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Compliant with University Policy Statement S8/07 Fire Drills</li></ul> Yes
<b>Have specific individuals been tasked to test the fire alarm system on a weekly basis, and to initiate fire drills?</b>
Yes
<b>Are these persons aware of the specified protocol for informing the University Security Services control room, or other monitoring service?</b>
Yes
<b>Is key holder information provided to the University Security Services kept up to date?</b>
Yes
<b>Are staff offered fire extinguisher training provided through the University Safety Office?</b>
Yes
<b>Are all staff aware of the University policy for calling the fire service?</b>
<i>In particular</i> <ul style="list-style-type: none"><li>Compliant with University Policy Statement S2/05 Calling the Fire Service</li></ul> Yes

## REVIEW

It is necessary to constantly monitor this fire risk assessment. If there has been a significant change in the building that has affected the fire precautions a review will be needed of the current assessment and if necessary revisions made. Reasons for a review could include :

- Changes to work activities
- A change of use to part of the building
- Alterations to the building, including the internal layout
- The introduction, change of use or increase in the storage of hazardous substances
- A significant increase of the number of persons present
- The presence of persons with some form of disability