

## Fire Alarm Systems: Isolations and Safe Working

## Document Control

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# 1. Scope

This document sets out the procedure for the management and control of University Fire Alarm systems when being isolated.

It is intended to ensure a good standard of safety is maintained, compliance with current legislation, and best practice is achieved. The provision of effective written procedures is essential in delivering safe systems of work on fire alarm systems. This document makes recommendations for the allocation of duties to personnel and the way these duties should be performed.

The quantity and time of isolation required for the works, will determine the levels of notification required.

For the purpose of this document, a Project Manager is any technically qualified and competent staff employed by LU Estates and Facilities Management, that have sufficient knowledge and experience to lead and deliver the project. It is also someone who has been deemed competent within other departments under the small works policy.

## 2. Works that may activate a fire alarm system

Any activity which may cause the fire alarm system to activate and cause an unwanted fire alarm should be considered for isolation to ensure the university meets its requirement under BS5839 to limit false alarms.

Where this identifies the need for the isolation of devices, detectors, or of a loop of the fire alarm systems, a job should be raised to the electrical maintenance team and a fire alarm isolation request will need to be submitted. Significant isolation (greater than 4 devices) will require further notification to stakeholders, as such an isolation increases risks to both life safety and university assets. Isolations should not be larger than they need to be for the works without good reason and mitigation.

Where more than 4 detectors require isolation, the fire alarm isolation request via the E-permit system must also be completed (in addition to the request made to the electrical maintenance team) before the isolation is undertaken.

For a fire alarm isolation to take place, appropriate notice **MUST** be given to enable work to be planned. One week's notice is preferred but a minimum of 48 hours **WORKING** notice is required for isolations.

Project Managers should ensure that if multiple areas of work require isolation in a building at the same time, there is cooperation and communication with the building occupants and other Project Managers (where applicable).

## 3. Work/activity on the fire alarm system

### 3.1. Occupied Buildings

Lower risk work, where only 4 or less detectors are isolated will only require the job request to the electrical team and physical notification at the panel (applied by the person responsible for isolating the alarm). Anyone investigating an alarm actuation will therefore be aware of any works taking place and the location.

Where an activity which requires more than 4 detectors to be isolated, the Project Manager shall notify:

1. The Building Manager(s)
2. LU Fire Safety Lead
3. LU Security
4. Other PMs working in the building (where applicable)

before the electrical team are asked to isolate any devices – **those responsible for isolating the alarm may request evidence of this prior to isolation.** This will include any isolation of devices either electronically or physically (e.g. ‘capping off’ detectors), and any works associated with connection / disconnection of fire alarm systems or part of the fire alarm systems.

## 3.2. Unoccupied buildings

This section deals with buildings that are fully handed over to the contractor. An agreement shall be reached between the Project Manager that the Principal Contractor such that:

The Principal Contractor shall:

- Assume responsibility for fire management on the site and will comply with all associated legislation.
- Arrange (if agreed) for the existing system to be disconnected from the University’s master Fire Alarm control station(s).

The Principal Contractor at hand back shall:

- Reinstall the Fire Alarm system where agreed, fully test including the witnessing of all Cause and Effect of ancillary equipment interfaced to the Fire Alarm system.
- Arrange (where applicable) for the system to be reconnected to the University’s master Fire Alarm control station(s).
- Arrange for the new system to be formally handed back to the Project Manager/Leader with all relevant documentation and certification, prior to allowing University staff to occupy the building.

The Project Manager shall:

Notify the

- LU Fire Safety Lead
- LU Security
- Appropriate E&FM colleagues

that the system is out of commission between (date/time – date/time) and that the Principal Contractor is responsible for the system whilst it is out of commission.

## 4. Isolation process

The Project Manager must ensure the Principal Contractor or person in charge of the works are fully aware of the risks involved in working in occupied buildings.

Ensure the areas they are working in have been properly assessed, so there are no false activations, and work is only carried out in the areas that have fire alarms isolated.

If further isolations are required or length of time requires extending, it is the Project Managers responsibility to inform the electrical maintenance team of that area and give sufficient notice with an updated request.

## 4.1. Requirements

The Project Manager shall ensure that the following have been undertaken:

- A brief of the scope of work

Where necessary:

- have reviewed the up to date building as fitted fire alarm system drawings. If these records are not readily available, then a pre-work survey to identify the Fire Alarm system should be undertaken to understand this.
- have reviewed the fire alarm system zone chart(s); these may assist in identifying the impact the isolation may have on parts of the building.
- have reviewed the cause and effect of any ancillary equipment connected to the fire alarm system. If these records are not readily available, then a pre-work survey to identify the cause and effect of any ancillary equipment connected to fire alarm system must be undertaken to understand its status (e.g. there is a risk the isolation on fire alarm system could also disable ancillary equipment that may affect the operation of the building or the fire evacuation process).

If unsure, discuss with the LU Fire Safety Lead the planned isolations and agree a strategy for the work, this may include:

- Display notices
- Fire walkers
- Temporary alarms (klaxons) positioned appropriately
- Other permits e.g. hot works

## 4.2. Risk Assessment

The Project Manager shall ensure that any work is fully risk assessed, and number of isolations is minimal; this is particularly important for isolations larger than 4 detectors, and the risk assessment is required as part of the E-permit request. The Project Manager shall be responsible for ensuring the agreed provisions are put in place for carrying out the work.

## 4.3. Isolating of alarms

All isolations shall be carried out by the University Electrical maintenance team, their nominated colleagues, or by the Principal Contractor where agreed. Where the Principal Contractor is agreed, a specific plan should be approved by the LU Fire Safety Lead and Project Manager in advance.

Where possible, isolations should be undertaken at the panel such that times can be automatically programmed to re-instate detection and therefore reduce risk. However, where it is appropriate to use coverings, protective-coloured bags can be issued and applied. These should be approved bags to ensure detectors are kept clean of dust etc.

The PM should:

- Ensure 48 working hours' notice is given as for a normal isolation.
- Unless agreed, any bags should be removed at the end of each working day to ensure that the entire fire alarm system is fully operational.
- All bags issued, are returned and accounted for.
  - This can be achieved by numbering and recording the bags as they are issued and returned. This ensures that no bags have been left on any detection equipment.

#### 4.4. Isolations outside of normal hours or over 8 hours

Any isolation required (even if only one device) outside the normal working hours 08:00 – 17:00 Monday to Thursday, 08:00 – 16:00 on a Friday, or over 8 hours in total, will require the University insurers to be informed.

The Project Manager should contact LU Insurance Support ([Insurance.Support@lboro.ac.uk](mailto:Insurance.Support@lboro.ac.uk)) who will provide the necessary form(s) to be filled out for the project manager to complete and return.

The following should also be informed as part of the isolation request:

- The Building Manager(s)
- LU Fire Safety Lead
- LU Security

#### 4.5. Reinstatement of Fire Alarm

Upon completion of the work, the fire alarm shall be reinstated at the earliest opportunity by the person responsible for the alarm isolation, and returned to the Project Manager, along with a photo of the panel showing no faults.

For larger, and more significant isolations, a full test including the witnessing of all Cause and Effect of ancillary equipment interfaced to the fire alarm system may be required. If unsure, seek advice from LU Fire Safety Lead.

If necessary, arrange for the system to be reconnected to the University's master Fire Alarm control station(s) prior to allowing University staff to occupying the building, and ensure relevant record drawings are updated, this may include the fire alarm zone chart.

## 5. Appendix 1: Partial Fire Alarm Isolation Notification

See LU fire safety Lead for original file, hard copies held by electrical maintenance team



# Partial Fire Alarm Isolation Notice

Estates and Facilities Management have isolated part of the fire alarm for essential works

<u>The area affected includes:</u> (Incl. rooms/areas/FA zones)	<b>Manual Call Points?</b>	
	Yes	No
	<b>No. of devices</b>	

<u>Purpose of isolation</u>	Job Number:
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Duration of isolation				Contact Details		
Start Date		Finish Date		Person	Name	Phone
Start Time		Finish Time		Project Manager		
				Person responsible for isolation		

## 6. Appendix 2: Full Fire Alarm Isolation Notice

See LU fire safety Lead for original file, hard copies held by electrical maintenance team



# FULL Fire Alarm Isolation Notice

## NO UNAUTHORISED ACCESS

Details of work or issue:	Job Number:

Duration of isolation			
Start Date		Finish Date	
Start Time		Finish Time	

Contact Details		
Person	Name	Phone
Project Manager		
Person responsible for isolation		
In Emergency		
Security	01509 222142 / 0800 526966	
Health and Safety Service	01509 222181	

## 7. Appendix 3: Fire Walk Record Template

**Building:**

**Date:**

Time	Equipment in place	Comments	Print name	Signature
xx:xx	Klaxons all okay	Concerns e.g. Occupants behaviour, equipment not in place		
07:00				
08:00				
09:00				
10:00				
11:00				
12:00				
13:00				
14:00				
15:00				
16:00				
17:00				
18:00				
19:00				
20:00				
21:00				
22:00				
23:00				
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01:00				
02:00				
03:00				
04:00				
05:00				
06:00				