

**UNIVERSITY OF MANCHESTER.****FIRE SAFETY ADVICE NOTE NO 1.****Fire Safety Advice for a “Flash Bang” demonstrations/lectures.****1. Introduction.**

“Flash-bang” demonstrations have occurred in various University building lecture rooms (notably Chemistry), for many years. This fire safety advice note provides fire safety guidance to assist organisers when undertaking risk assessments for such events.

Integrating this guidance within the Faculty/School risk assessment process provides a template that can be applied to any repeat performances and as a starting point when considering any new venue. A Risk Assessment Method Statement will be required to support the Permit to Work (PTW) applications – both for “Hot Works” and “Fire Alarm Isolation” which have to be made in advance of any “Flash Bang” demonstrations/lectures. A PTW application must be submitted by the organiser using the University’s electronic PTW system.

**2. Fire Safety actions for organisers to take.****Early considerations.**

The ELV Supervisor and the Electrical and Mechanical teams will need to be consulted to ensure there are no implications relating to the fire alarm itself and/or any ventilation arrangements which may carry smoke to other areas where smoke detection is present. This is to ensure that false alarms do not occur.

Once a PTW application is submitted, at least five working days (but longer if possible) is required by the ELV manager’s team (or Mechanical Team) to plan, schedule, and complete any isolation of detectors or to allow for any ventilation consultation arrangements.

**The following actions should be observed and complied with within the organisers RAMS:-**

### **Smoke Detection.**

- Smoke detection in the theatres must be isolated prior to the commencement of the performance and remain isolated until the theatre is clear of fumes that could activate the fire alarm unnecessarily, (isolated for a maximum period of 30 minutes after the performance, dependant on fume removal by ventilation. NB capping of detectors is an acceptable alternative to an electrical isolation at the panel. However, the decision as to which way isolation is achieved rests with the ELV team.).
- Admission access corridor to the theatres should be isolated for the same period. Such arrangements should be made with the ELV Supervisor. (Remember fire alarm permit is required before the fire alarms are isolated and only the ELV manager's team can complete such isolations).
- Staff in the area of the detector isolation should be aware of the temporary isolation and that call points are unaffected and still operable, someone will need to "Firewatch" these areas and raise the alarm via a manually operated break-glass point if a fire does occur. They should maintain a presence in the room whilst the detection is isolated. The fire alarm call points and sounders should always be active throughout the building. Any staff involved in this arrangement should be aware of the building fire alarm routine and know where the nearest call points are in the event of discovering a fire in the room.
- Whilst the performance is taking place the opening of lecture theatre access doors should be discouraged to prevent activation of fire alarm detectors. Even with the immediate smoke detectors isolated in the theatres and vicinity an element of control should be exercised to prevent foreseeable activation of the fire alarm in other areas, particularly at the end of the performance when the audience will open doors allowing any accumulated fumes not removed by mechanical means to escape from the theatres.

### **If the Fire Alarm actuates.**

- It is important that **any** fire alarm activation is responded to appropriately; evacuation must take place if the alarm activates, it is not acceptable to ignore the alarm, **even if the demonstration is thought to have caused the alarm.**

### **Audience considerations.**

- The organiser needs to consider the proximity of the front row of the seats in the room chosen being used. A **minimum safe distance of 3 metres must be maintained between the point of demonstration and the audience** throughout the event. This may mean that the front rows of the lecture theatre cannot be used and if so, they should be signed as such. If for any reason, the organisers risk assessment requires a greater safety distance, then the greater distance should be adhered to.

- Any Means of escape provided in case of fire should be kept clear.
- Organisers should consider the possibility that disabled persons could be present and take any necessary measures to ensure that they will have safe egress and/or be able to reach a refuge. Any person attending who has a disability will require a Personal Emergency Evacuation Plan, (PEEP) and this needs to be considered in relation to seating arrangements and safe distances.
- Students who attend who are asthmatic or have any type of breathing problems will need to be independently assessed by organisers.

### **Ventilation Considerations.**

- Advice from the University's Mechanical Team on any mechanical ventilation in the lecture theatres must be sought, as such installations will need to be operational and active during the performance and continue until the theatres are clear allowing the isolated smoke detection to be reinstated.
- Any process involving the creation of toxic, irritant or hazardous gas or vapour **may** require alternative/additional of ventilation/extraction systems. Any such systems should be able to be isolated quickly should a fire occur so as not to propagate any fire.

### **Fire Extinguishers and Fire Blankets.**

- Suitable fire extinguishers should always be immediately available during any demonstrations. The person delivering the demonstration should be fully trained and competent in the use of fire extinguishers (NB it is recommended that such staff undertake appropriate training every three years).
- Sufficient fire blankets should be made available as indicated in the organisers risk assessment.

### **Personal Protective Equipment (PPE).**

- The demonstrator should wear safety glasses and if they have long hair, it should be tied back. A face shield may be necessary depending upon the type of demonstration, similarly gloves should be considered by the demonstrator in accordance with the organisers risk assessment. The wearing of suitable personal protective equipment ( PPE) such as overalls, safety footwear, gloves, face protection safety helmets and dusk masks and any other item regarded as essential to afford the necessary protection to individuals carrying out the demonstration as considered in the organisers own risk assessment.
- Safety glasses should be made available for bystanders particularly those close to the demonstration.

Finally, once the event has finished and the area has been cleared and ventilated, it is extremely important that the necessary arrangements are put into place to return the area to normality, any fire detectors, however isolated, should be reinstated at the earliest opportunity.