

The  
University  
Of  
Sheffield.

Health  
& Safety.

## The Council, 27 November 2017

### Report of the Health and Safety Committee

**Date:** 23 October 2017

**Chair:** Mr Dodman

**Secretary:** Mrs D Fisher

#### SECTION C

##### 1. Terms of Reference

The Chair welcomed the new members to the Committee and thanked those who had stepped down for their considerable input during their membership.

The Committee approved the Terms of Reference.

##### 2. Control of Contractors Policy and Procedures.

Mrs Gouldsbrough presented the Policy to the Committee and advised that the reviewed Policy had been amended to remove items solely relevant to EFM procedures as they had now produced their own Policy.

The Committee approved the Policy.

##### 3. Portable Heaters

The Committee agreed that due to the number of incidents over the last few months which had alerted Health & Safety and the Energy Team to the widespread use of portable heaters across the Campus and the obvious need to address the risk and environmental impacts associated with their use, a Policy was to be created.

Mr Dodman gave the deadline for the draft document of the w/c 20 November 2017. This would then be discussed for approval at the next UEB meeting.

##### 4. Fire Safety – City Wide Review of Multi Storey Residential Dwellings

Mr Fleming informed the Committee that since the Grenfell Tower incident, both University and private accommodation had been inspected and no findings of concern had been reported.

All University sleeping buildings had the L1 standard of alarm system in place and all University non-sleeping buildings with multiple egress had the L2 standard of alarm system in place.

An agreement for upgrades had been put in place with the small number of partnerships where the alarm system was not up to standard. It was reported that

where the evacuation policy was not in situ, a process for floor walkers to raise the alarm had been generated. It was stressed that all accommodation without contracts were continued to be assessed by The Task Finishing Group.

#### **5. Progress of Management of Health Surveillance Policy and Referral Process**

Ms Tait presented the paper and stated that that there was nothing further to report.

Members were informed that the HML was reviewing the health and safety procedure and the UoS was to be included in the pilot stage to which Ms Tait would keep the Committee updated.

The Committee approved the Policy.

#### **6. UCEA Health and Safety Annual Report**

The Committee accepted the paper and no comments were raised.

#### **7. Annual Report – Health and Safety (Appendix 1)**

Mr Fleming presented the annual report and provided the Committee with a health and safety overview from the last 12 months.

A couple of worrying indicators were picked up in audits and also in accident investigations. The two main concerns, which were strongly interlinked related to the absence of appropriate risk assessments in relation to a number of research and occasionally teaching activities and by extension a lack of suitable supervision of post-graduate research students. It was recommended that a clear and unequivocal message go out from UEB to all academic departments instructing Heads of Department to ensure their area of management responsibility complied with the legal requirement to risk assess hazardous activities. It was the view of the Head of Health & Safety that with the combined efforts of the Head of Department, supported by the central Health & Safety team that this particular concern could be rapidly addressed. Mr Fleming to present a report for discussion on this issue to UEB.

Despite the mentioned concerns, the Head of Health & Safety was pleased to report that the systems for managing health and safety at University of Sheffield are, in the main, robust and fit for purpose.

#### **8. Annual Report – Security Services**

Mr Yates presented the annual report provided the Committee with a security overview from the past 12 months.

Mr Yates notified members that reported crime figures at the University of Sheffield showed an increase of 7 reported crimes during the last year, from 216 crimes in year 2015-2016 up to 223 crimes in the year 2016-2017. The rise in crime at the University could be attributed to a number of factors consistent with crime trends and reporting procedures across the City.

Mr Yates advised that although complaints from local residents and students were on the rise, the complaints were usually of a minor nature.

Mr Yates reported South Yorkshire Police had undergone a significant restructure leading to the loss of the dedicated police constable assigned to support the University. However, following lengthy and difficult negotiations, it was agreed the University fund the provision by SYP of a dedicated team of officers consisting of one Police Constable (PC) and two Police Community Support Officers (PCSOs). The officers would be based on University Campus in company with the two Deputy Operations Managers and supervisors.

## **9. Annual Report – Staffing Sickness Absence and Statistics**

Ms Tait presented the report and provided the Committee with an overview of the University staff sickness absence data recorded over the last four years.

Ms Tait informed the members that Human Resources had been focusing on the Juice (health and wellbeing offer) and continued to work closely with staff and line managers to promote the University's Juice offer; including the proactive, preventative offer that connects managers and staff to very high

quality health care and expertise

Ms Tait reported that although difficulties in capturing sickness absence for academic staff (in particular long term absence) was transpiring, reasonable data capture for the other staff categories had been received.

## **10. Annual Report – ACS Food Audit**

Mr McKown presented the report and provided the Committee with an overview of the ACS food audits over the past 12 months.

Mr McKown advised the Committee that all 32 ACS food outlets on Campus were self-audited on a monthly basis as well as daily checklists carried out daily.

Mr McKown reported that after the external audit report, all units received 5\* status apart from 1 unit which received 4\* status.

## **11. Students Union Report**

Ms Thompson presented the report which gave full information to the changes to SSU Health and Safety Management and the structure of health and safety related meetings.

## **12. Significant Accidents and Incidents**

Mr Fleming presented the paper which outlined the number of accidents, incidents and near misses that had occurred since the last meeting.

Mr Fleming informed the Committee that 5 of the recorded incidents had resulted in formal notification to the Health and Safety Executive under RIDDOR.

## **13. Report of the BioSafety Committee**

The Committee accepted the Report and no comments had been raised.

## **14. Report of the Radiation Working Group**

The Committee accepted the Report and no comments had been raised.

## **15. Report of the Legionella Key Risk Review Group**

The Committee accepted the report and no comments were raised.

## **16. Report of the Asbestos Key Risk Review Group**

The Committee accepted the report and no comments were raised.

## **17. Fire Safety Standard of University House**

Mr Salter notified the Committee that following the identification of the fire compartmentation breaches, a full building survey was undertaken by Gleeds Surveyors/Construction. Balfour Beatty reported that of the 340 tasks they were required to complete, 90% were completed with a small area on level 4 still to access. Mr Garlick - Head of Property & Business Services, Estates & Facilities Management reported that once Balfour Beatty's work is complete, a new survey would be undertaken by Gleeds Surveyors/Construction to confirm all remedial work is to

standard and work would commence on the breaches that the University is responsible for.

**18. TU Building Inspections**

Mr Ashman informed the Committee that an inspection had taken place at the Pam Liversage building and nothing significant had been raised. Mr Ashman complemented the standard of the risk assessments carried out by the lab staff and management.

**19. Any Other Business**

No further issues we raised.



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**Health and Safety Committee**

**Annual Health and Safety Report**

**October 2017**

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# Annual Health and Safety Report

## 1 Introduction

Health and safety legislation requires employers to monitor and review arrangements for managing occupational safety and health. This Annual Report is a vehicle for the University Health and Safety Committee to describe our health and safety risk profile and give senior management and Council assurance on the performance in managing significant risks in those areas.

### Health and Safety Across the University

The main theme of the 2016 Annual Health & Safety report was the need to revitalize health and safety across the University and the need for closer engagement between the Health & Safety team with faculties/departments and professional support services.

This 2017 annual report will primarily focus on how effective that engagement has been and what issues the closer relationship has identified.

In brief the revitalisation programme focused on:

- Central Health & Safety representation on all faculty and departmental health and safety committees, to provide professional guidance and help ensure consistency of approach.
- Participation of a member of Health & Safety in departmental inspections.
- Invitation to TU Appointed Safety Reps to participate in departmental inspections. This is already a legal entitlement enshrined in law, but has not been embedded as yet in our internal health and safety procedures.
- A re-focus of the health and safety training programme to target areas identified in audit and in accident/incident investigations as posing a vulnerability to the University. One key area already identified in many academic departments is the lack of competent risk assessments by academic staff.
- Accident/incident investigation reports and action plans which give a clear steer to local managers in preventing recurrence of accidents/incidents.

This Annual Health and Safety Report will cover the following topics: -

- The health and safety policy and implementation arrangements, including senior management responsibilities.
- The main occupational safety and health hazards associated with the University's business, provisions for risk assessment, and assurance that control measures are suitable and effective.
- Whether the health and safety management system is based on continual improvement priorities and plans.

- Arrangements for auditing the health and safety management system, including any external auditing or verification.
- Assurance that work-related ill-health incidents, accidents and other untoward events are investigated and lessons learned.
- Training provided, including for senior managers and other employees.
- Causes of the most serious accidents and episodes of ill health, together with actions taken to prevent recurrence.
- How the health and safety performance of contractors is measured, managed and assured.

## **2 Health and Safety Policies and Information**

A number of existing health and safety policies and procedures have been reviewed, with no new policies being introduced in this reporting period, for the first time.

The principle over-arching document is the statutory Health and Safety Policy and Arrangements which defines key health and safety management responsibilities across the University. This document had become outdated and as required by legislation has been reviewed and recirculated. A number of other key policies (e.g. Fire Safety) had similarly become outdated and were re-written to reflect current legislation. Other areas (e.g. BioSafety) were missing completely.

The health and safety policies put in place in 2016/17 are as follows:

-

### **New Policies Adopted and Implemented**

- The Provision and Use of Work Equipment Policy and Procedures

### **Existing Policies Reviewed**

- Health and Safety Policy and Arrangements
- Fire Safety Policy and Procedures
- Laser Safety Policy and Procedures
- Non-Ionising Radiation Policy and Procedures
- Work at Height Policy and Procedures
- Auditing and Monitoring Policy and Procedures
- Biosafety Policy and Procedures

The above raft of policies will be reviewed by Health and Safety in conjunction with other interested parties and stake-holders on a regular basis of no longer than every two years to ensure their continued accuracy and compliance.

## **3 Health and Safety Audits and Inspections**

During this reporting period a spot-inspection was carried out by the Health & Safety Executive (HSE) into the activity of contractors carrying out a refurbishment on premises Glossop Road.

The HSE Inspectors were satisfied with the work in progress.

### 3.1 Internal Audits 2016/17

#### Internal Audits, 1 October 2016 to 30 September 2017

The purpose of a health and safety audit is to provide senior management with a level of assurance that legal compliance is being achieved and that University policies are being implemented.

The audit programme carried out in 2016/2017 is shown below: -

<b>Department Risk Type</b> 1= High 2= Medium 3= Low	<b>Department</b>	<b>Audits Completed</b>
3	Human Communication Sciences	October 2016
3	Human Resources	October 2016
3	Mathematics and Statistics	October 2016
3	Department of Urban Studies and Planning	October 2016
3	Nursing and Midwifery	November 2016
3	Politics	November 2016
3	Strategy Planning and Governance	November 2016
3	Student Services	December 2016
1	Chemistry	January 2017
1	Animal and Plant Sciences	April 2017

1	Physics and Astronomy	May 2017
1	Biological Services	June 2017
1	Molecular Biology and Biotechnology	July 2017
1	Electronic and Electrical Engineering	August 2017

One of the critical points to note is that for the first time the University of Sheffield has carried out a professional and objective audit programme, against a recognised health and safety standard (ISO 18001), across all departments of the University.

The findings of the health and safety audits will be used to inform the health and safety training programme of recurring areas of vulnerability, to enable our training to be targeted where it is most needed to protect our staff, students and visitors.

### **General Findings and Trends**

- 1) Lack of current or relevant “owned” Health and Safety Policy (A further audit question has been added which asks: have the HS Committee developed a Workplace Hazard list which feeds into the development of the Health and Policy? An example has been added to the Health and Safety webpages).
- 2) Dysfunctional or no Health and Safety Committee (often not chaired by the Head of Department). (Audit recommendation that Health and Safety Committees are chaired by the Head of Department).
- 3) Little or no evidence of a systematic approach to undertaking health and safety inspections/monitoring. (Health and Safety Team attending departmental inspections where practical).
- 4) Little or no evidence of formally monitoring health and safety training. (Health and Safety Team attending departmental Health and Safety Committee meetings to encourage agendas to focus on monitoring of training).
- 5) Little or no evidence of a systematic approach to risk assessment and monitoring of risk assessment quality. (Audit recommendations to include Heads of Department to take a “systematic” approach to the completion of risk assessment.

### **Particularly Good Development Worthy of Reporting**

The Faculty of Science have organised a Health and Safety Executive Committee which requires Heads of Department to attend and report on the findings of their audits and report on progress with their action plans.

#### **4 Health and Safety Training Programme**

##### **Central Health and Safety Training**

The 2016-2017 core training programme, developed by Health & Safety, was delivered in full with no cancellations. This year we reached out to 411 delegates through targeted face-to-face health & safety training, an increase of over 10% from the last reporting year.

The programme of courses continues to be reviewed in consultation with Departmental and Faculty representatives in order to provide relevant, good quality training on key health & safety issues that affect the University. On this basis a number of new courses (such as carriage of dangerous goods and Evacuation Chair operation) have been introduced into this year's training programme. A review of available online courses was also instigated this year which has seen the content of these courses refreshed and updated to bring in line with changes to legislation or accepted good practice.

This year also saw the successful roll-out of practical workshops, with the aim to build attendees' confidence in carrying out real life risk assessments in the workplace, which have been very well received and are planned to continue into the year ahead.

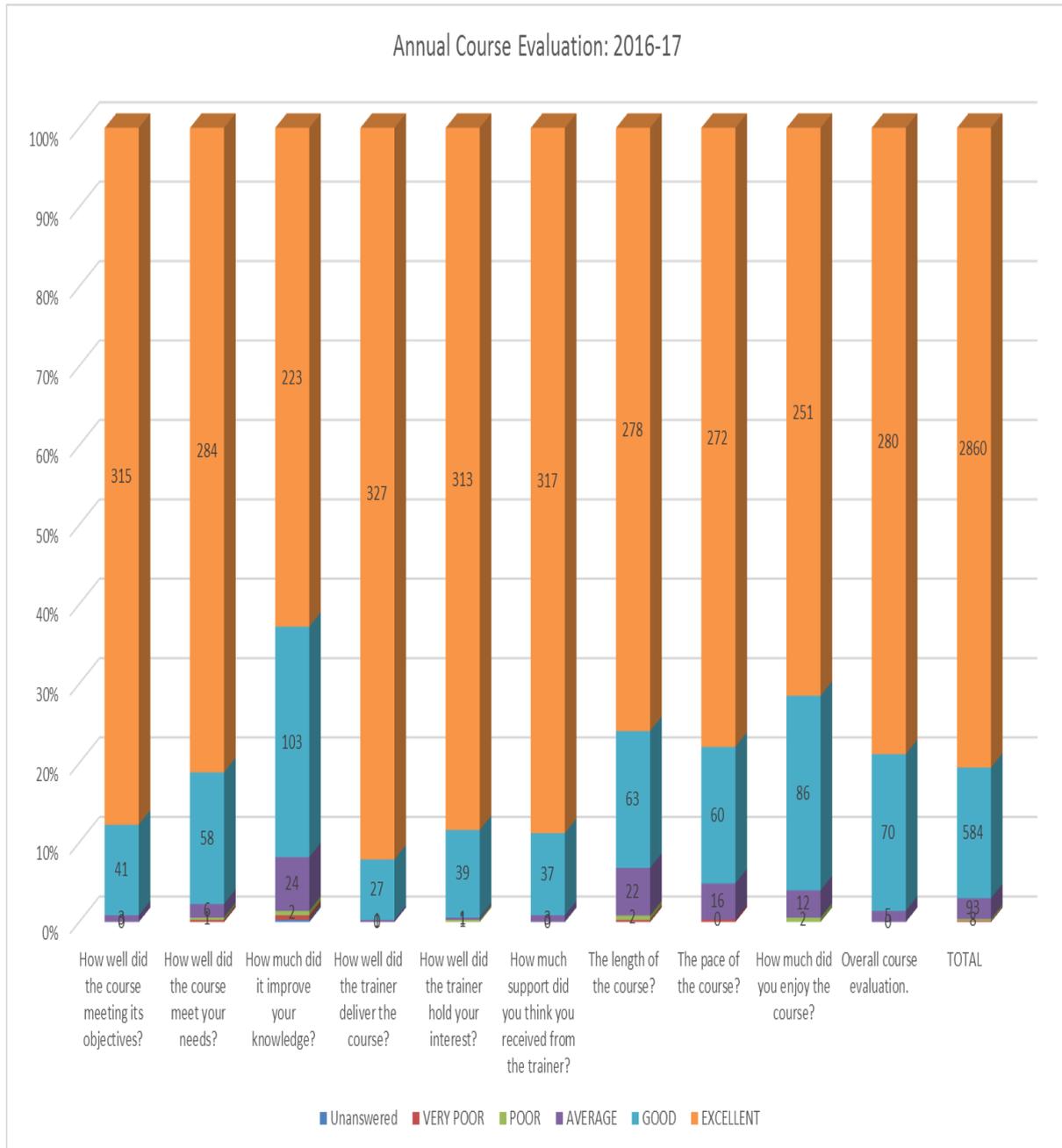
Feedback received from delegates attending in-person courses continues to be consistently "good" or "excellent".

**Attendance at 'In Person' Training Courses Provided by Health & Safety  
1 October 2016 to 30 September 2017**

<b>COURSE TITLE</b>	<b>No. Courses</b>	<b>No. Attendees</b>
Accident, Incident and Near Miss Investigation	2	23
Carriage of Biological Substances & Dry Ice*	1	15
Carriage of Radioactive Substances by Air*	1	8
COSHH Assessment	1	11
Cryogenic Awareness*	2	14
Display Screen Equipment Assessor	2	27
Evac+Chair Operators	8	28
Fieldwork Supervisor	2	17
First Aid at Work/First Aid at Work (Refresher)*	13	121
Health & Safety for Departmental Safety Officers	3	32
Health & Safety Responsibilities and Liabilities for Senior University Managers	1	12
Hydrofluoric Acid and Cyanide Treatment	2	22
Manual Handling Awareness - 'Train the Trainer'	4	25
Manual Handling Risk Assessment	1	12
Risk Assessment Practical Workshop	7	44
<b>Total</b>	<b>50</b>	<b>411</b>

*\*Courses delivered by external providers*

**Feedback from Courses from Delegates on all Face-to-face Courses Held  
1 October 2016 – 30 September 2016**



**Completion of 'Online' Training Provided by Health & Safety  
1 October 2016 - 30 September 2017**

<b>Course Title</b>	<b>Staff</b>	<b>PGR<sup>1</sup></b>	<b>Others<sup>2</sup></b>	<b>TOTAL</b>
CDM 2015 Update Briefing	62	0	4	<b>66</b>
Display Screen Equipment (DSE) Training and Self-Assessment	2146	704	412	<b>3262</b>
Fire Awareness Training	6546	2339	804	<b>9689</b>
Fire Marshal Training	457	54	34	<b>545</b>
General Risk Assessment Techniques	593	459	314	<b>1366</b>
Health & Safety Induction	629	0	47	<b>676</b>
Laser Safety	55	66	16	<b>137</b>
Manual Handling – The Basics	1048	333	64	<b>1445</b>
Out of Hours Hazard & Risk Awareness	2109	1124	432	<b>3665</b>
Personal Emergency Evacuation Plans (PEEPs)	57	47	0	<b>104</b>
Safe Use of Step Ladders & Ladders	509	125	19	<b>653</b>
Radiation – X-rays	29	31	30	<b>90</b>
Radiation – Sealed Source	2	2	8	<b>12</b>
Radiation – Unsealed Source	8	23	0	<b>31</b>
Radiation – UV	30	35	34	<b>99</b>

<sup>1</sup> Post Graduate Researchers

<sup>2</sup> Includes honorary staff, postgraduate taught students, retired/visiting staff and temporary staff expected to be employed by the University for at least 2 months.

## **5. Fire Safety Report**

### **5.1 Changes to Fire Safety Legislation, British Standards or Guidance**

The British Standard 9999:2017 – “Fire safety in the design, management and use of buildings. Code of practice” has been ‘refreshed’ and reintroduced this year.

This British Standard is applicable to the design of new buildings, and to alterations, extensions and changes of use of an existing building. The recommendations and guidance given in this British Standard are intended to safeguard the lives of building occupants and fire fighters.

The Fire Safety team will monitor all refurbishments and new designs to ensure the above standards are being applied.

## **5.2 Fire Risk Assessments (FRA)**

The risk based inspection programme (RBIP) for fire risk assessments on University premises continued during the reporting period. All work generated from these inspections is has been input onto the Health & Safety FRA recording system, prioritised according to risk and then passed to the EFM Helpdesk for action.

There has also been several additions to the FRA programme for 2017 due to the completion of 'new-build' projects, major refurbishments or acquisition of new sites. These include; Minalloy House, 299 Glossop Road, Low Carbon Combustion Centre (LCCC Crown Works Unit 3) and AMRC Foers Units C1, C2 & B1.

Building plans, produced at the time of the fire risk assessment inspection, continue to be updated and will be routinely added to the online system.

Following the tragic Grenfell Flats fire, reviews of our building stock have been completed in terms of cladding and fire safety standards, with particular attention being given to those buildings where sleeping accommodation is provided, including partnership/leased properties. This work is ongoing to the end of the year.

## **5.3 Fire Service Inspections**

The Fire Service undertakes two main types of inspection on University premises. These are either familiarisation visits by operational crews, confirming or updating building layouts, hazardous materials/processes and firefighting facilities or Fire Safety audits enforcing the requirements of the Regulatory Reform (Fire Safety) Order (RRO).

During this reporting period, the Fire Service completed four familiarisation inspections in the Information Commons, Western Bank Library, Bio-Incubator and Husband Building.

No enforcement visits have taken place in this reporting period.

## **5.4 Fire Drills - 2016/17**

Annual fire evacuation drills were completed as per the Health & Safety schedule for 2016. These drills were undertaken by both Health & Safety staff and Facilities Managers.

All buildings assessed with the exception of one, met the minimum acceptable standard for evacuation times. However, no 'drill' had to be repeated as the specific matter was resolved after intervention by the relevant Head of Department for the building concerned.

## 5.5 Fire Emergency Incidents - 2016/17

(Between 1<sup>st</sup> October 2016 & 31<sup>st</sup> August 2017)

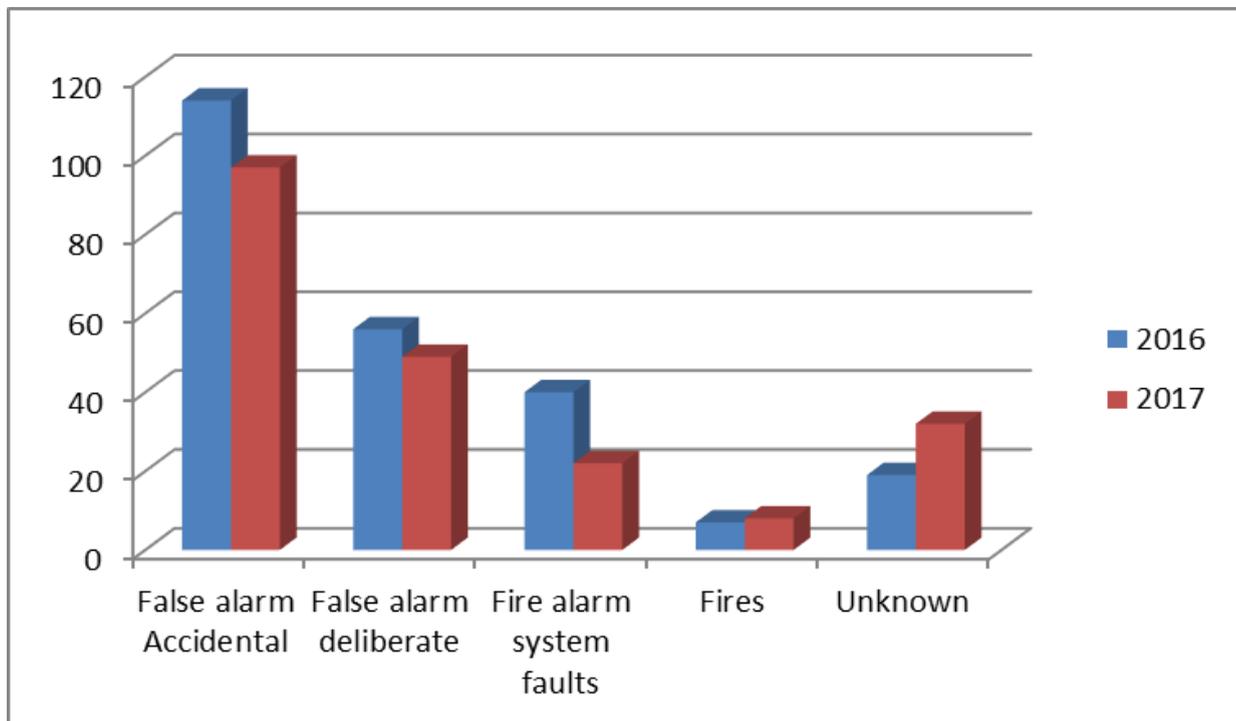
**Table 1: Fire Emergency Incident Totals (2016 & 2017)**

	Residences		Campus	
	2016	2017	2016	2017
False alarm - Accidental	114	97	68	92
False alarm - Deliberate	56	49	5	1
Fire Alarm System Faults	40	22	41	44
Fires	7	8	5	6
Unknown	19	32	20	40
<b>Totals</b>	<b>236</b>	<b>208</b>	<b>139</b>	<b>183</b>

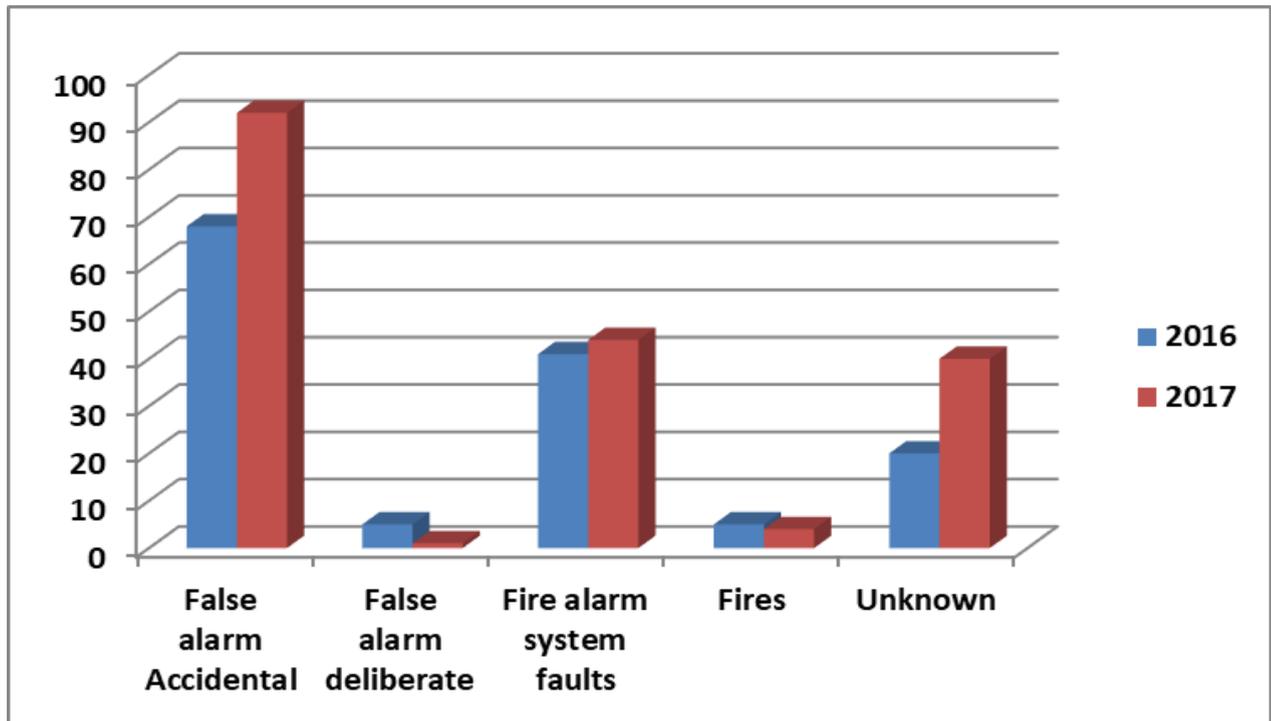
The above table provides 'totals' for each incident type for both Residences and Campus incidents to allow for a general comparison.

However, the information below provides graphical detail and statistical information specific to each of these two groups.

### 'Residential' Incidents (Yearly Comparison)



**'Campus' Incidents (Yearly Comparison)**



In order to provide a greater level of detail for each incident type and to further simplify the reporting procedure, the detailed incident 'breakdowns' have also been divided into two types. These are 'Residential' and 'Campus' Incidents.

**Residential Incidents** - The breakdown of the figures reported in Table 1 are as follows;

**False Alarm – Accidental = 97** (114 in 2016)

	Residential
Alarm activated with good intent	0
Contractor activities	5
Steam from kettles, showers etc.	21
Cooking related incidents	54
Use of aerosols	13
Accidental activation of call point	2
Faulty/misuse of electrical appliances	1
Dust etc. in detector	1

This year has seen a **decrease** in the number of incidents in this category (**97** from 114). The majority of the accidental fire alarms continue to be caused by cooking related activities. This is usually related to food being left unattended in conjunction with fire doors to kitchens being 'wedged open', thereby allowing fumes to reach a smoke detector.

Reasons given for doors being wedged open range from ignorance of the need to keep

them closed through to poor ventilation within the kitchen. This year has again seen false alarms caused by individuals cooking away from kitchen areas i.e. in living/dining rooms.

It is also worthy of note that a large proportion of false alarms were given as “steam” related (i.e. showers, kettles etc) and due to “aerosols”.

We will continue to work with ACS colleagues through the ‘education’ of students in matters relating to fire safety in order to address this continuing trend, especially in relation to cooking correctly and safely.

Further work is required by ACS to inform and educate students around the problems of steam and aerosol related incidents and the effectiveness of ventilation systems.

**False Alarm – Deliberate = 49 (56 in 2016)**

	Residential
Damage to break glass call point	27
Deliberate activation/damage to detector	8
Interference/damage to fire panel	0
Interference/damage to firefighting equipment/doors etc	2
Smoking in building	12

The number of this type of incident has **decreased** from that recorded in 2016. However, It is disappointing to see that a high proportion of incidents in this category (**37** in total) relate to some form of deliberate interference or damage to Fire Safety systems which are provided by the University for the protection of students.

Smoking within buildings is now included within this ‘deliberate’ category with a worrying **12** incidents being reported even though smoking has been prohibited in all University buildings for several years now and although the current figure shows a reduction, false alarms due to smoking should be at zero levels.

The Health & Safety Department in conjunction with ACS will continue to provide initiatives such as the on-line fire training programme, mentor training and student interaction and staff intervention following incidents to raise the awareness of the dangers of all types of unacceptable behaviour.

**False Alarm – System Faults = 22** (39 in 2016)

	Residential
Faulty detector	6
Other faults (panel, wiring etc.)	13
Water moisture dripping into detector	3
Accumulation of dust in detector	0

It is welcome to see that the number of events within this category for the reporting period has **reduced** significantly from 39 to **22**.

Faults that do occur are recorded, investigated and forwarded to EFM Helpdesk for action. The predominant cause being problems with fire alarm panels. This could be seen as an indication of fire alarm systems requiring refurbishment or upgrades.

**Fires = 8** (7 in 2016)

	Residential
Defective machinery/electrical equipment	1
Cooking related fires	1
Human error - smoking related, candles, bin fires etc	5
Malicious ignition/arson	1

Events in this category have **increased** slightly to **8** from 7 in this reporting period. It is concerning that the majority of these were related to ‘human error’ which includes smoking (which reflects the trend set within the criterion False Alarm – Deliberate). We will continue to work with ACS colleagues through the ‘education’ of students in Fire Safety in order to reverse this continuing trend.

**Campus Incidents** - The breakdown of the figures reported in Table 1 above is as follows:

**False Alarm – Accidental = 92** (75 in 2016).

	Campus
Alarm activated with “good intent”	3
Contractor activities	28
Steam from kettles, autoclaves etc.	18
Cooking related incidents	15
Use of aerosols	1
Accidental activation of call point	14
Faulty/misuse of electrical appliances	7
Dust etc. in detector	6

There has been a significant **increase** in this type of event during this reporting period when compared to 2016, the main contributory cause being a near doubling of false

alarms due to contractor activity (15 to 28). This is disappointing as the previous trend was downward due in the main to the introduction of the Code of Practice (COP) for the 'permit-to-work' procedure for contractors when working in and around fire alarm systems.

However, it is pleasing to see that following communications from the fire safety section to DSO's, incidents involving cooking within the workplace (in areas not designated as kitchens) has fallen within the reporting period from 22 to 15. Additional smaller increases occurred in accidental activations of manual break glass fire alarm call points and faulty/misuse of electrical equipment.

**False Alarm – Deliberate = 1** (6 in 2016)

	Campus
Damage to break glass call point	1

It is pleasing to see that occurrences of this nature on campus have **reduced** during this reporting period and continue to remain relatively low. However, it is extremely disappointing to note that some individuals still choose to damage equipment which is provided for the safety and protection of students and staff. If caught, the incident will be thoroughly investigated with offenders being dealt with under the University discipline system.

**False Alarm – System Faults = 44** (48 in 2016)

	Campus
Faulty detector	19
Other faults e.g. fire alarm panel	18
Water/moisture entering detector	4
Inclement weather conditions	1
Dust accumulation within detector	2

When looking at the current figures for this reporting period, it can be seen that there has been a small **decrease** in the number of system faults from 48 to **44**.

The refurbishment and upgrade of life safety systems such as fire alarms, continues via the University maintenance and refurbishment programme. This is the main 'driver' in trying to reduce the total number of incidents of this type. It has been agreed at the University Health & Safety Projects Group meeting that specific buildings would benefit from a fire alarm system upgrade. This work is progressing well and is close to completion (as of August 2017).

**Fires = 4 (5 in 2016)**

	Campus
Defective machinery/electrical equipment	2
Experiment malfunction	1
Deliberate ignition / arson	1

It is pleasing to see that we have again seen a small **decrease** in fires across Campus during this reporting period (from 5 to **4**).

Every fire is taken seriously. However, some fires are considered less serious than others. 3 of the 4 incidents were relatively 'minor' in nature with 2 being small fires due to defective machinery or electrical equipment and 1 being a combustible waste fire external to the building.

The University did suffer a serious fire within a Laboratory caused by failure of control systems during an experiment. The fire resulted in serious damage to the internal fixtures and fittings of the room and its contents. However, damage was restricted to the room of origin due to the fire doors preventing fire spread and the intervention of the Fire Service.

### **Residential & Campus**

#### **General**

It is worthy of note that negative fire alarm events within the University on the whole remain relatively low when measured against the number of fire alarm systems fitted to buildings, the nature of some activities within our science and engineering departments and in relation to the number of staff and students who work and study within our buildings.

Notwithstanding the above, the University will endeavour to continue to identify all causes of fires and fire alarm activations and to continue to work with others (both internal and external partners) in order to reduce them to a level as low as possible.

## **6 University Health and Safety Risk Register**

The University structure has changed significantly in the past few months and as a result the University Health and Safety Risk Register is under a full review. Once this review is complete the Register will be presented to the February 2018 meeting of the Health and Safety Committee.

## **7 Biosafety Report**

### **7.1 Biosafety Committee**

The Biosafety Committee continues to meet three times per year to advise and report on all matters relating to biological safety. Membership of the Committee and its terms of reference are regularly reviewed to ensure the correct level and depth of expertise is available to meet the demands of current research trends.

During this reporting year, the Committee approved 19 projects involving genetically modified organisms (GMOs). This included a total of 2 projects at GMO Class 2 or above which require formal notification to the Health & Safety Executive (HSE). Both projects were duly acknowledged by HSE with no objections being raised to the proposed work.

The Committee continues to monitor current best practice with emergent technologies and the increasing popularity of gene editing techniques within scientific research (such as the CRISPR-Cas9 system).

The Committee now considers all accidents involving biological agents, such as monitoring the incidence of needlestick or “sharps” injuries, and advises on appropriate measures that may need to be put into place to prevent reoccurrences. A key outcome to note from this monitoring process was the development of a standardized needlestick emergency response procedure which incorporates the resources available to the University.

### **7.2 Biosecurity Visit from the National Counter Terrorism Security Office (NaCTSO)**

During October 2016 the University was visited by representatives of the National Counter Terrorism Security Office (NaCTSO), to review the physical and procedural security measures in place for the storage and use of biological agents listed under Schedule 5 of the Anti-Terrorism Crime and Security Act 2001. It was reported that NaCTSO were satisfied that recently upgraded physical security measures meet the required standard, and only minor procedural recommendations were made by the Counter Terrorism Security Advisors.

## **8 Ionising and Non-Ionising Radiations**

### **8.1 Personnel and Work Registrations**

There are 28 departments within the University who are working with ionising and non-ionising radiation sources.

There were 41 new radiation worker registrations in the year Sept 2016-August 2017. Over that period the number of active registered workers had decreased from 263 to

240 as several workers are no longer involved in radiation projects were therefore categorized as 'non-current'. There are still 51 workers yet to be approved on the database this will be completed as soon as they have satisfactorily completed their training. The University does not at the present time have any 'classified' workers.

There had been 10 new work certificates issued in the past year and the number of active work certificates held is 131. The majority of dormant certificates have now been removed to ensure that the database provides an accurate snapshot of current work with ionising radiation in the University.

The review of Personnel Doses for 2011-2016 records continued to show robust protection procedures as there were only a few very minor doses recorded through the year.

The University now has on its register 355 lasers 263 of these are currently in use, with 101 of these being Class 4 devices. In addition there are now 378 registered laser users.

This year saw the commissioning of 2 new multi-user laser labs in the Departments of Electronic & Electrical Engineering and Physics & Astronomy. In November of this year a new laser welding cell will be commissioned at the Nuclear AMRC around November.

## **8.2 Training in Radiation Protection**

Radiation protection training continues to be completed online. This will be updated to reflect legislative changes and to provide further details of the registration process for new users.

A Departmental Radiation Protection Supervisor (DRPS) and Departmental Laser Safety Officer (DLSO) update session is scheduled for December 2017 which will cover the arrangements for compliance with the new ionising radiation regulations, details of the proposed new laser eyewear standard and an update on new online training.

One 'in person' course was completed by an external training provider in 2017 covering the Transport of Radioactive Materials by Air as this activity is becoming increasingly common. The course was attended by the Radiation Protection Officer, Biological Safety Officer and 6 Departmental Radiation Protection Supervisors. The course was well received and all but one delegate passed. This course was completed following a recommendation by the Office for Nuclear Regulation as several staff involved in the transport of radioactive materials did not have evidence of formal training.

Over the past year 137 courses have been successfully completed covering laser work; 133 courses successfully completed covering radioactive materials and x-rays; and 99 courses successfully completed covering UV work.

## **8.3 Radiation Inspections and Audits**

All departments were inspected last year with a total of 69 inspections undertaken: 29 x-ray inspections, 23 sealed and unsealed source surveys and 17 laser inspections.

It was noted that several departments had several items of unsealed source stock which had not been used in over 5 years, therefore actions have been raised to dispose of these items if their chemical composition has deteriorated or there are no plans for future use.

All statutory monitor tests and sealed source leak tests have been performed and the new monitor testing protocol has been well received and is functioning effectively.

Radiation audits are now performed alongside central health and safety audits. The Radiation Protection Officer has been involved in 6 audits so far, covering high risk departments including Chemistry, Physics, Animal & Plant Sciences, Biological Services, Molecular Biology and Biotechnology and Electronic & Electrical Engineering.

Key findings from the audits include a general lack of departmental policies and procedures, lack of evidence of departmental training in radiation procedures and a general lack of suitable and sufficient risk assessments.

#### **8.4 External Inspections**

External inspections from the National Counter Terrorism Security Office (NaCTSO), Environment Agency and Office for Nuclear Regulation took place in 2017.

The Counter Terrorism and Environment Agency representatives visited to review the physical and procedural security and accountancy measures in place for the storage and use of high activity sealed sources (HASS). Both agencies were extremely happy with the procedures in place at the University and commented that we are one of the best in our field where compliance is concerned.

The Office for Nuclear Regulation were also pleased with our operations with regards to the transport of radioactive materials and raised minor actions which were well received and helped to improve our systems. In response to this visit, our Emergency Arrangements for the Transport of Radioactive Materials were updated and further training was provided to Departmental Radiation Protection Supervisors on the transport of radioactive materials. A further visit is expected to occur in 5 years' time.

#### **8.5 Waste Disposal**

There was one waste collection in August 2017 with an activity of 72.78 MBq; the volume for this collection is yet to be confirmed, however, 3 x 1100 litre bins were exchanged.

The activity of waste removed was higher than usual this year as departments had been encouraged to dispose of redundant radionuclide stock.

No Uranium and Thorium waste has been disposed of this year; a disposal is expected in 2018 following the completion of a research project in MSE.

## **8.6 Legislation and Standards**

There have been no further updates to laser standards in 2016/2017.

The new Ionising Radiation Regulations that will implement the new Euratom Basic Safety Standards (BSS) are due for issue on 1 January 2018 and a draft is expected in October 2017 when they have been laid before Parliament.

The Health and Safety Executive (HSE) will be implementing a graded approach to practices involving the use of ionising radiation, ranging from a simple notification, the registration of a practice or the requirement to gain consent for a specific activity. It is likely that the University of Sheffield will be required obtain a licence for High Activity Sealed Sources (HASS), the new PET/MRI facility and the use of the irradiators, and register remaining practices. The HSE will also be placing a stronger emphasis on risk assessments and contingency plans in radiation protection, along with appropriate training.

The University will have until 6 February 2018 to complete electronic submissions to the HSE. Each submission will cost £25 and will include a question set designed to assess compliance against the new regulations. As yet no draft question set has been released, but it is expected that around 8-10 questions will be required for a registration, with around 20 questions for a consent.

The proposed strategy is to perform compliance audits in each department to enable accurate submissions for each notifiable practice. These will take place between November and mid-January when the draft regulations are available.

Submissions will be used by the HSE to form a risk profile to inform inspections and we should expect increased presence from the HSE in this area.

## **8.7 Other Items**

The Radiation Protection Officer continues to work towards the Radiation Protection Adviser (RPA) and Radiation Waste Adviser (RWA) certificates and has successfully completed the Certificate of Professional Development in Radiation Protection which forms the core of knowledge required to act as a RPA and RWA.

Collaborative work with the RPA's at the Royal Hallamshire Hospital continues and is expected to increase in 2018. The new PET/MRI project, and potential addition of a Cyclotron facility has heavy involvement from the University and NHS which will provide key learning and development opportunities for the RPO.

## 9 Accidents and Incidents

The accident data provided covers the period from 1 October 2016 to 30 September 2017.

### 9.1 Reports to Health and Safety Executive under the Reportable Accidents & Dangerous Occurrences Regulations (RIDDOR) 1 October 2016 – 30 September 2017

Report Category	Incident Date	Status	Accident Description
<b>Specified Injury</b>	27/07/17	Employee (Research Associate)	<b>Serious Burn</b> The Injured Person (IP) was planning to carry out experiments using nitric acid (conc 69%). Whilst carrying the nitric acid between labs the container split causing the acid to spray out. Resulted in a serious burn to the thigh and minor facial burns.
<b>Dangerous Occurrence</b>	02/10/16		<b>Failure of Lifting Machinery</b> During the lowering operation of a motorised lighting bar from ceiling to floor position, one of the lighting bars fell uncontrollably from height of approximately 2 metres. No injuries to any persons were sustained.
	12/10/16		<b>Accidental Release of Harmful Substance</b> A pregnant student was exposed to Acryloyl Chloride. The student and baby were assessed and monitored at hospital. The consultant gave assurance that both were unharmed.
<b>Injury Preventing the Injured Person from Working for more than 7 Days.</b>	18/01/17	Employee	<b>Cut Requiring A&amp;E Treatment</b> Opened a door to collect a mop and bucket when a large knife fell down from the top of the cupboard slicing in between the IPs index and second finger. The wound was stitched and glued at hospital.
	04/05/17	Employee	<b>Burns Requiring A&amp;E Treatment</b> The IP was making an electrical connection to newly installed heating pumps when a set of bellows burst releasing hot water, which sprayed onto the IPs ankles, legs and torso. Resulted in superficial burns that were treated at hospital.
	20/07/17	Employee	<b>Fall Requiring Ambulance</b> The IP was standing at floor level, dusting/cleaning a notice board that was secured to a wall near to a staircase leading to a lower floor. No stepladders/kicks stools were being used. The IP fell downstairs. Resulted in IP being taken to hospital by ambulance with a foot injury.
	06/08/17	Employee	<b>Burn</b>

			Removing a tray containing hot water from an oven, water dripped onto foot causing the IP to drop the tray. Resulted in scalding to hands, knees and feet.
	04/09/17	Employee	<b>Torn Ligaments Requiring A&amp;E Treatment</b> Dismantling a Silver Birch tree, resulting in torn ligaments to bicep, surgery required.
<b>Total number of Reportable Accidents &amp; Dangerous Occurrences = 8</b>			

There were 8 RIDDOR reportable accidents and dangerous occurrences in 2016/17 compared to 12 RIDDOR reportable accidents in 2015/16. It is pleasing to see a decrease (by a third) in the reporting of these accidents through to the Health and Safety Executive; however, it is disappointing that 2 of the RIDDORS were reportable dangerous occurrences, before these, the last dangerous occurrence reported was in December 2009.

## 9.2 Online Accident/Incident and Near Miss Reporting 1 October – 30 September

Accident Category	2015/16	2016/17
Sporting injuries	126	118
Sharps injuries	86	95
For information	52	72
Slips, trips, falls	67	73
Near miss (potential for injury)	121	112
Other categories	234	232
<b>Total No. Reports</b>	<b>686</b>	<b>702</b>

The slight increase in reported accidents coupled with a significant increase (38%) in reports for 'information only' is extremely encouraging. Staff/students are increasingly reporting issues that they consider relevant.

## 9.3 Significant Incidents (Non-RIDDOR Reportable)

There have been 2 other significant incidents that have happened during the current reporting period but had not been in the RIDDOR reportable categories, these are:

- On 10 August 2017** staff working in a lab within the Alfred Denny Building complained of a strong odour which turned out to be fumes coming from a roof repair. The contractor was using a well-known/well used sealant. Concerns had been raised by one member of staff, as she was pregnant and had been in the vicinity.

The woman sought medical advice from her care team and was reassured that everything was going well with her pregnancy.

Health & Safety carried out an investigation into the incident and a report with

recommendations was prepared and delivered to the Director of EFM & IT for action.

- **On 6 November 2016** - A fire occurred in a Lab located within the Hadfield building. The result of the fire was significant heat and smoke damage to the room concerned and its contents. The Fire Service were required to attend and they extinguished the fire.

The fire was effectively contained within the room due to the fire doors that were closed at the time of the fire, thereby preventing fire and smoke spread into the building.

Following an investigation into the cause of the fire, it was determined that a heater which had been removed from an experiment had been placed onto combustible material (straw) and then inadvertently plugged in, igniting the straw. The fire then spread to other items within the room.

As a consequence of the investigation and the findings, the Head of Health & Safety scheduled a meeting between all interested parties to discuss the fire and consider how to prevent fires of this nature occurring again in the future, this meeting has since taken place and all matters discussed and actions agreed.

#### **9.4 General Accidents and Incidents**

The main issues of note in the general accident trends are the following:

- There has been a slight decrease in sporting injuries and near misses.
- There has been a 10% increase in injuries by sharps and a 9% increase in slips, trips and falls.
- There has been a significant increase (38%) in "information only" reports which is encouraging because it demonstrates that people are reporting what they believe to be an incident or near miss.

The above trends would tend to indicate a stabilising of overall accident rates, despite raised awareness of the need to report all incidents.

The task for the coming year will be to reduce accident rates in all main categories.

## **10 In Conclusion**

While the general trends in health and safety across the University remain positive there are a couple of worrying indicators being picked up in audits (general as well as radiation audits) and also in accident investigations. The two main concerns, which are strongly interlinked relate to the absence of appropriate risk assessments in relation to a number of research and occasionally teaching activities and by extension

a lack of suitable supervision of post-graduate research students. It is the view of the Head of Health & Safety that the absence of any suitable risk assessment was a direct causational factor in the serious nitric acid incident reported in more detail earlier in this annual report (Section 8.1).

An appropriate risk assessment for any hazardous activity is not only a requirement under our own University procedures, but it is also a strict legal requirement. We should anticipate that where a department has failed to ensure appropriate risk assessments are carried out and an accident follows which can be attributed to that failing then legal penalties may result. At the time of writing this report we have been advised that an Health and Safety Executive visit will take place to investigate management actions taken in response to the nitric acid incident.

The reasons often given for failing to carry out an appropriate risk assessment include; "I don't have time to do it"; "I wasn't aware I needed to do one. I thought it was the responsibility of the Departmental Safety Officer?"; and most frightening of all given that staff are only required to risk assess their own, or their student's area of work "I don't feel competent to do a risk assessment".

It is proposed that in order to address this growing concern that the Health & Safety team will: -

- 1) Carry out audits of all high risk (Level 1) academic departments, giving particular focus to risk assessments of hazardous processes.
- 2) Provide bespoke risk assessment training sessions for departments where deficiencies in the risk assessment process are found.
- 3) Work with the relevant Head of Department to embed the risk assessment process into the standard practices of the department.
- 4) A report on any areas of concern arising out of audit findings will be made to each meeting of the University Health & Safety Committee.

It is also recommended that a clear and unequivocal message go out from UEB to all academic departments instructing Heads of Department to ensure their area of management responsibility complies with the legal requirement to risk assess hazardous activities.

It is the view of the Head of Health & Safety that with the combined efforts of the Head of Department, supported by the central Health & Safety team that this particular concern can be rapidly addressed.

At the start of this reporting period the University was notified of the tragic death of a member of our research community. This prompted the Health & Safety team to work with faculties to review our storage and use of hazardous materials. It was

therefore heartening to receive a subsequent visit from the NaCTSO representative who found our facilities and arrangements to be suitable and fit for purpose. This speaks volumes for the work of the departmental research staff (academic and technical), and the commitment of the relevant Departmental Safety Officers to achieve and maintain such high health and safety standards.

The last year has once again seen a significant amount of campus development and change. In health and safety times of significant change can often be a time for concern. I am pleased to report that through the commitment and work of Project Managers and the application of a robust Control of Contractors Policy there have been very few incidents arising out of this area of work; although this is an area which is worthy of on-going monitoring in the current academic year.

The Head of Health & Safety is pleased to report that the systems for managing health and safety at University of Sheffield are, despite the issues raised above, in the main, robust and fit for purpose. Furthermore, senior management can take some assurance that appropriate monitoring is in place to ensure our systems continue to improve as anticipated for an institution of our standing in the HE sector.