

# Health Safety & Wellbeing Annual Report 1st January to 31st December 2021.

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## 1. Executive Summary

Whilst Covid continued to require a considerable amount of input from HSW staff, the SEPS team in particular, the volume of non-Covid safety work on campus increased over the year to near normal levels as academic and other University activity returned from lockdown restricted levels. The increase in variety of work this has brought is most welcome for everyone across HSW but nonetheless means work demands have been extremely high for many of the team members. For instance, there has been a very high demand for training to be organised and delivered as external trainers returned to in-person training and as other activities started up, requiring staff to be trained/ refreshed. I am astonished to see that we have delivered training, through both face-to-face and online models, to around 10,500 staff and students.

The detail of work conducted is covered below but there are some pieces of work worth emphasizing here. The Biological Safety Adviser (BSA) continued to deliver a high level of support to the Lighthouse Covid testing lab. Their operation moved from employing existing University staff, who were gradually required back in their substantive roles as restrictions eased, to recruiting new staff, many lacking the considerable technical experience of their predecessors. This required a different kind of input from the BSA, with a greater focus on routine lab skills and systems and exploring an increase in minor incidents to help prevent recurrences. The BSA also supported applications for licence renewals for 2 areas of high-risk biological research. One of these required a 4-day audit by the Health and Safety Executive (HSE) which required a considerable amount of work collating pre-audit submission material, accompanying the Inspectors on-site and joining follow-up meetings. Despite some practical building maintenance challenges, the licence was able to subsequently be successfully submitted and renewed, enabling critical research to continue uninterrupted.

The Chemical Safety Adviser (CSA) was heavily involved in investigation of a serious fire in the Wolfson link building which caused considerable damage but fortunately no injuries. The investigation highlighted issues in relation to equipment maintenance, emergency arrangements and training but the lessons learned subsequently have enabled much reduced use of mains gas and associated equipment in labs across the campus. The CSA also responded to the discovery of an old and badly degraded compressed gas cylinder, contents unknown and was able, with a degree of difficulty, to arrange its swift removal for controlled explosion during the first week of COP26.

Alex Shearer joined us as Safety and Environmental Adviser and has had a busy first few months, advising on safe disposal of a variety of waste products and materials and decommissioning of a substantial fuel tank. In his safety role, he has been involved in a number of issues, most recently an investigation into an injury to a student at the equine unit at the vet school.

Reflecting the increase in practical work, incident numbers have increased from the artificially low levels seen in 2020, although they still remain below the average levels typically seen before Covid. We suspect that some of the incidents we have had reported are due to a combination of less experienced students, due to restrictions on practical skills teaching, as well as a degree of professional and technical “rustiness” for more experienced students, and indeed staff, who have had less opportunity to work in live situations, particularly in labs. Others may have arisen as a result of restricted access to conduct normally routine checks on equipment and stores.

The Fire Safety Officers were also involved in investigating the Wolfson link fire, liaising with Strathclyde Fire and Rescue throughout, as well as a number of smaller fire incidents. A big focus was efforts to reduce unwanted fire activations, which increased significantly in residences due to students spending more time working online and cooking more meals in their accommodation.

All the staff across HSW returned to at least part-time on-campus working during the course of the year. We anticipate that most will continue with hybrid working models, and this generally suits the nature of our work. Some staff worked on campus throughout the restrictions, these included the Fire Safety Officers who continued statutory work, such as fire risk assessment reviews, and the Radiation Protection Service who ensured, with considerable support from the Director of Health, Safety & Wellbeing's PA, that dosimetry badges continued to be issued and returned for analysis and isotope deliveries reached areas of critical research that continued through restrictions.

The Occupational Health Unit managed to maintain a presence on site during the lockdowns of 2021. Staffing the Unit presented a real challenge (and still does) and the clinical and admin staff both reduced to around 50% of normal levels. It was therefore quite remarkable that the staff managed to see such high numbers of student through health screening and immunisation clinics. Referral waiting times did suffer however and remain much longer than pre- pandemic. Unfortunately, our Occupational Health colleague Rosie Cimmino was forced to retire during 2021 through serious illness. Many will have met and remember Rosie from the health surveillance programme she enthusiastically delivered, and we were all saddened to hear of her death in December.

The Director of HSW has been heavily involved in the variety of ongoing internal Covid monitoring and working groups, as well as the Scottish Government/ Universities Scotland Covid Leads working group that facilitates dialogue between our sector in Scotland and the Government on Covid legislation, guidance and their practical application in institutions. The Director of HSW has also been overseeing business continuity management, including organization of two lessons learned exercises, response to an extensive internal audit of BC management and preparing a successful business case for the creation of a BC Officer post, currently under recruitment.

## **2. Key developments and achievements**

### **Administrative changes**

The SEPS team remained busy through the various 2021 Covid restrictions and provided support through a mix of on-site work and home working to the academic and service staff working on campus.

Despite attempts to recruit early in 2021, SEPS environmental role remained vacant and was covered by other SEPS staff until August 2021 when we were pleased to welcome Alex Shearer to a joint Safety and Environmental Adviser role. Alex has settled into the role well during the latter part of the year meeting colleagues across the University and familiarizing himself with the activities of the organisation.

In the latter part of the year SEPS worked with the IT team to move the University incident reporting system to the Ivanti platform and we hope that this can be completed early in 2022.

### **General safety**

Once again, the year was in many ways dominated by the ongoing Covid-19 pandemic which had a major impact on the activities being undertaken on campus by both the SEPS team and our colleagues in research, teaching and support services. Despite the national restrictions, over the course of the year as more research and teaching activities restarted, the need for safety support to academic and support units developed and grew, returning largely to pre-pandemic levels.

The Head of SEPS, assisted by the Chemical Safety Adviser (CSA), continued to maintain and update the SEPS Covid-19 Resource webpage and associated documentation and links to keep staff and students informed of how to work safely during the Covid-19 pandemic. This involved constantly updating risk assessments and guidance each time there was a change in Covid risk or protection levels and was a time consuming and seemingly never-ending task. By the end of the year the Covid Generic Risk Assessment had reached its sixteenth update. However, the value of the activity was apparent when the Health and Safety Executive (HSE) carried out a Covid compliance check as part of a wider ranging visit in November 2021 and identified the SEPS web page, and the Covid Generic Covid risk assessment in particular, as a valuable resource and very helpful in reassuring them that the University was taking responsibility for staff safety with reference to working on campus during the pandemic.

Other routine tasks associated with Covid, carried out particularly by the Director of HSW and Head of SEPS included:

- Monitoring and dissemination of Covid daily and weekly statistical reports within the University and to the Scottish Government.
- Liaison with Public Health Scotland on any potentially linked cases or to clarify matters of policy.

- Attendance at the weekly Scottish Government Covid Leads Group and reporting of discussions and implications of proposed changes to relevant University managers.
- Review and comment on technical reports and other submissions to Scottish Government.
- Participation in the University Covid Task Group, Covid Planning Group and Accommodation meetings and contribution to development of University policy, guidance and communications through these, and other, avenues.
- Provision of professional safety advice on Covid restrictions and on the very frequent changes in these to University senior management.
- Responding to requests for advice on permitted activities and appropriate precaution in relation to work, study travel and social activity from many individual staff and students.

The addition of Alex Shearer to the SEPS team in August 2021 provided much needed resource and Alex was able to help support the return of staff and students to the campus over the first Semester. From August, responsibility for provision of general safety advice was gradually assigned to Alex, working in conjunction with other members of the team where necessary. Alex also undertook investigation of some incidents where there was no specialist chemical or biological dimension, including two RIDDOR reportable incidents.

Other general safety advice provided by our new safety adviser included risk assessment advice for the Weipers Centre following an injury from a horse, wheelchair access recommendations following a disabled student being unable to exit from a building, ergonomic recommendations for the Lighthouse Labs and advice on the legal requirements for fixed appliance testing for CMVLS.

### **Travel procedures**

Building on work done on travel during 2020, and the publication in January of the revised University Business and Study Travel Policy, the Director of HSW and Head of SEPS worked in conjunction with members of the Finance team to facilitate the development and launch of a University travel page and associated Travel Portal, (TRICAP) This allows a more streamlined registering and authorisation of University work and study-related travel and, in relevant cases upload and review of travel risk assessments. To support this system SEPS developed a suite of documents including a generic Low-risk Travel Risk Assessment form, a Trip-specific Risk Assessment for higher risk trips and an explanatory Travel Process Flowchart to illustrate and explain the process. The SEPS travel webpages were restructured to present the above document and links to the TRICAP portal in, we hope, a clear and coherent manner. The policy has been further updated alongside this work to ensure consistency.

After some initial adjustment of the TRICAP portal by Finance to ensure that the risk assessment demands of the IT system were aligned with those intended, the TRICAP system is settling in and becoming an established and functional University system.

### **Biological safety**

The Biological Safety Adviser (BSA) provided advice across the Colleges and Schools this year as work progressed, recommenced or was planned. Throughout 2021 the BSA also continued to provide significant general safety as well as specialist support to management units involved in teaching, research and support activities throughout the year.

The diverse range of existing and proposed work with pathogens and animal models across the organisation increased as the year progressed. The increasing biological risk profile of the University has required the BSA to support front-line academics and area managers as higher risk work increased and COVID-19 testing operations and research grew. Higher risk activities required prior notification to the enforcing authorities before work could commence and university notifications were supported by the BSA on behalf of the organisation. The BSA continued to update the University Pathogens and Toxins register as new pathogen work commenced.

One major element of Covid- driven work was the BSA's support to the Glasgow Lighthouse COVID-19 Testing Laboratories at QEUH. This required provision of very extensive guidance, safety supervision and conduct of accident investigations along with support and follow up for local inspections and for statutory inspections of the facility. This is a very large facility employing over 800 staff.

A number of Units required support on the importation processes and documentation for receiving pathogens into the UK from EU and non-EU countries. There was also a review and issue of a new guidance document by the BSA for work with Specified Animal Pathogens to inform University processes for these agents and ensure corporate oversight of the University SAPO licences.

The BSA supported the amendment and renewal of applications for two of the University SAPO licences which are ultimately being combined into a single licence. The first application at the start of the year required substantial input from the BSA to clarify and agree the named buildings and associated derogations in place at the Henry Wellcome Building Complex at Garscube with the HSE SAPO lead. The second licence was for SAPO 3 agent licence renewal and significant change to add animal components to the work. This involved a large body of preparatory work and a 4-day inspection by HSE with subsequent University response facilitated by the BSA. Both outcomes were favourable.

The Institute of Infection, Immunity and Inflammation is the largest institute in CMVLS and undertakes a substantial amount of the University's higher risk biological work. In recognition of this risk profile, the BSA attended the Institute Health and Safety Committee meetings and provided technical expertise and health and safety advice during the year.

The BSA provided input and technical advice throughout the year to the four CMVLS Genetic Modification (GM) Safety Committees to ensure appropriate approvals, or consents, were in place for the diverse range of work with genetically modified organisms, animals and plants. Additionally, as a co-opted member of the NHS Greater Glasgow & Clyde GMSC the BSA also continued to contribute to the review of GM risk assessments for work in NHS clinical trials.

Support was provided on ergonomic considerations for work activities across Units including at the high-throughput COVID-19 testing laboratories. A visit to the QEUH mortuary was also undertaken to observe Forensic Pathology's post-mortem practice during normal busy activities. The purpose of this was to assist managers in this area to reduce the risks of musculoskeletal injury, or development of longer-term conditions, to University-employed technicians and pathologists.

Input from the BSA was required on local proposals in relation to laboratory refurbishments for existing/new bodies of work including insectaries, other animal facilities and derogated containment level 3 areas. In some cases, advice was correctly sought proactively whilst in others a level of intervention by the BSA was required.

Ongoing technical support and advice was also provided to the ARC project including identification of health and safety requirements, signage planning and participation in meetings and site visits with the relevant parties. Input to a laboratory health and safety signage guide was provided, (in conjunction with the CSA and RPA). This was used to develop a signage strategy for the ARC and to standardise health and safety signage in the associated laboratory areas.

The BSA investigated and followed up on a variety of incidents across the organisation throughout the year. Fortunately, these were predominantly minor incidents, most involving use of glassware or sharps or spillage of material. The volume and nature of the work at the Lighthouse Lab and the scale of this has resulted in a major increase in the number of reports of minor spills and the unit has a stringent reporting policy for such incidents and reports any minor incident not involving injury to SEPS as a near miss/dangerous occurrence. Almost all of the Lighthouse Lab incidents were very minor. However, one spill incident at the start of the year did result in a requirement to report the event to HSE as a RIDDOR dangerous occurrence as this involved a known pathogen-containing material. HSE followed this up thoroughly in conjunction with the BSA. HSE were satisfied with what had been in place and that the Unit had done everything that was reasonably practicable in the circumstance.

The BSA also undertakes general safety duties which included general accident investigations and statutory reporting of a small number of incidents to the enforcing authorities where appropriate. The SEPS Team meet regularly with our colleagues in Occupational Health Service and the BSA liaised with them on specific health-related matters arising from within Units across the University.

## Chemical safety

Over the course of 2021 the CSA has continued to provide both general and specialist support to management units involved in research, teaching and support activities with a significant number of requests for advice and assistance received throughout the year. Some examples have included:

- Reinstating the ongoing programme of atmospheric monitoring in the anatomy teaching facility to ensure that staff and students were not exposed to harmful chemicals released from preserved cadavers during dissection classes.
- Development of a laboratory health and safety signage guide working in conjunction with the Biological Safety Adviser and RPA. This document was used to develop a signage strategy for the ARC and subsequently communicated to all users to improve and help standardise health and safety signage in laboratory areas.
- Provision of advice and support during the technical evaluation and DSEAR assessment of the flammable liquid (and waste) stores operated by the School of Chemistry leading to development of an improvement plan for the facilities.
- Ongoing participation in the School of Chemistry Health and Safety Committee to provide technical expertise and health and safety advice to the Head of School and other committee members.
- Collation of information relating to the use of substances classified as chemical weapons (and precursors) to ensure that the University provides appropriate information to the UK Govt in accordance with the internal chemical weapons convention (CWC).
- Review, with the named veterinary surgeon, of the policies and procedures used to manage the stocks of controlled drugs used by Biological Services to ensure compliance with security, record-keeping and safe disposal requirements.
- Provision of ongoing technical support and advice to the ARC project including identification of health and safety requirements, signage planning and participation in meetings and site visits with all the relevant parties. The CSA has also worked with the newly appointed Head of Operations and Technical Operations Manager along with the project managers from Estates to identify and resolve potential issues and develop safe working practices for staff and students working in the ARC. He has also been involved in the preparations for research groups moving their equipment and consumables into the new building.

## Key incidents

Over the course of 2021 the CSA investigated 64 accidents, incidents and dangerous occurrences which occurred on campus. While many of these incidents were relatively routine (e.g. small spills, minor cuts etc.) there were some that were more significant including:

- A fire which occurred in room 5-35 in the Wolfson Link Building causing significant damage to the laboratory. The CSA was involved in providing specialist advice and support to the emergency services during the emergency phase and aftermath of the incident, managing the safe disposal of affected chemical stocks and participating in the incident investigation and subsequent review. Based on the findings of the review he generated a safety alert to warn users of the risks of using gas burners in laboratories and was involved in a University-wide survey and review of gas safety procedures and shut-off systems to reduce the risk of similar incidents in the future,
- A smaller fire caused by an uncontrolled reaction in the Joseph Black Building was of note due to the inappropriate reaction of the researcher involved and poor storage of flammable waste in the vicinity of the incident. Following this incident, the SEPS team worked with the School of Chemistry to improve flammable waste storage.
- Over the course of the year there were several potentially serious near misses where regulators were ejected from high pressure EVOS style cylinders due to user error. In response to these incidents a safety alert notification was sent to all safety coordinators and a programme of refresher training for cylinder users was organised (this will continue in 2022). The CSA was also asked to participate in a working group run by BOC to help develop safer cylinder technologies in the future.

- Towards the end of the year a release of a hazardous anaesthetic (isoflurane) occurred in a treatment room in the VRF leading to a member of staff receiving a minor exposure to this hazardous substance. The CSA carried out a detailed investigation with the result that a range of changes have been proposed to improve chemical management and controls across Biological Services.
- A large chemical spill occurred in the chemical waste store located outside the Joseph Black Building when inappropriate mixing of incompatible chemicals during disposal caused a full 10 litre waste container to pressurise and fail spilling waste onto the floor. The CSA led the emergency response to ensure the incident was cleaned up safely and efficiently and has made recommendations to improve local spill response procedures both within the School of Chemistry and elsewhere in the organisation.
- There was an incident which required investigation by the BSA to establish whether any potential exposure had occurred to a researcher working with a potentially harmful disease. Fortunately, this was not the case, and all the appropriate protocols were found to have been followed, but some modifications to practice were made to further improve protection as a result.

## **Environmental**

### **Chemical Waste Contract**

At the beginning of 2021, the University formally appointed a new chemical waste supplier (Tradebe) to manage hazardous chemical waste generated during research and teaching activities. As the position of Environmental Adviser was vacant, the CSA was responsible for working with both the incumbent supplier (Veolia) and the incoming supplier to ensure arrangements were in place to ensure a smooth transition of services. This included working with service users within the University of Glasgow to put appropriate systems and communication channels in place before the contract commenced. Working with Tradebe a monthly “milk run” was established to encourage regular disposal of waste and feedback on the new arrangements has been very positive with no significant disruption during the changeover period. The introduction of the “milk run” has also brought a cost saving to Schools and Institutes as there are no individual pickup charges.

On the appointment of a new University Safety and Environmental Adviser (SEA), the CSA facilitated the handover of the contract management to the SEA working with him and Tradebe to ensure continuity of service.

### **Clinical Waste Contract**

The clinical waste contract was also retendered late in 2020 and a new contract began in the early part of the year. The same supplier was retained allowing the regular collections to continue with minimal disruption. The BSA oversaw this transition and ensured the smooth running and continuity of the clinical waste contract, prior to facilitating the hand over to our new University Safety and Environmental Adviser (SEA) over the course of the autumn. The contract has operated well during the year but has needed some monitoring and support work to ensure that order numbers for uplifts provided by university units are correct and that invoicing is operating correctly.

### **General Environmental Advice**

Since joining in August 2021, the Safety and Environmental Adviser (SEA) has provided general environmental advice as well as more specialist advice on improving waste management throughout the University. Examples included:

- Disposal considerations for a range of materials such as silicon slurries, mercury and UV lamps, fume hood filters, defunct veterinary x-ray equipment, glass fibre epoxy dust, printer cartridges and polyacrylamide gels among others.
- Disposal of mixed biological/chemical waste such as RNA extraction waste.
- A leaking underground fuel storage tank. Advice was given on the code of practice for decommissioning and/or removal of the tank as well as siting considerations for the replacement above ground tank.
- Co-ordinating clinical waste uplifts over the festive period where demand was erratic.

- Advice on process improvement and remedial measures in the avoidance of chemicals being poured to drain including paraffin in the School of Archaeology, methanol, ethanol and dibenzothiophene solutions from CMVLS and
- Supporting waste considerations in the ARC

In addition to this advice, other environmental activities undertaken have included supporting the Sustainability Manager in data collection for public sector climate change reporting and assessing the suitability of lab plastics recycling. We plan to run a pilot study within a willing lab with the aim of assessing the practicalities of lab plastic recycling and if this can be extended University-wide.

## **Fire Safety**

### **Fire**

One serious fire occurred during 2021 involving the gas supply within a laboratory in the Wolfson Link Building. Although this resulted in significant damage to the laboratory, the building was successfully evacuated with no injuries and the fire contained within the laboratory by Strathclyde Fire & Rescue Service (SFRS). The on-site response and inter departmental cooperation and coordination internally and with SFRS for the duration of the incident was excellent. A follow up lessons-learnt seminar was convened where further learning points could be actioned and taken forward. The SEPS fire safety team liaised with SFRS following this incident which was believed due to a faulty Bunsen burner which ignited incorrectly as it was lit. A review of laboratory gas use was carried out across the University in conjunction with other members of the SEPS team and laboratory staff resulting in reduced use of gas in some areas and disconnection of supplies in others.

All other fire incidents were minor and were dealt with promptly by staff on site. These incidents included lab experiments with flammable materials and (largely unavoidable) overheating of electrical equipment. SFRS carried out post fire audits in relation to two of these incidents but in all cases offered advice only. The fire safety team also supported various SFRS familiarisation visits to our existing buildings and to new buildings as they were added to the University estate.

The Fire Safety Advisers continue to put considerable effort into monitoring unwanted fire alarm activations. The internal response process includes support by Security to assist building occupiers and local Area Fire Officers to identify, address and mitigate impacts of all unwanted fire alarm signals timeously to reduce unnecessary SFRS call- outs.

The total number of alarm activations increased considerably from last year, up from 104 (2020) to 237, 221 of these being unwanted alarms. (See Table 5 for a breakdown of causes) Unsurprisingly the first quarter of the year gave the lowest number of incidents with sizable increases in July (residencies starting to see a return) and November (mid-winter). This can be attributed, in part, to the reopening of the University and the inclusion within our totals of some of our third party managed properties, particularly student residencies. Some of this increase may be attributable to students spending more time within their residence due to online teaching and reduced social activity. However, areas which are highlighted for further investigation and action are the number of alarm faults, the number of cooking incidents and what is known as ‘occupier activity’ events.

As a result of the higher number of alarm activations, the attendance of the Scottish Fire and Rescue Service (SFRS) increased significantly both in total and as a proportion. Most of the SFRS call outs (80%) were to residencies. Work is needed in this area to reduce the number of unwanted fire alarm activations and this will be one of our main aims for 2022. This will allow the University to demonstrate an ability to manage our buildings and to avoid drawing on the limited resources of SFRS unnecessarily, especially at a time when the resources of all organisations are stretched.

The extensive Campus Development Programme continues to require significant input from the Fire Safety Advisers, along with input by other specialist advisers, at the design stage to minimise the need for potentially costly and time-consuming alterations once the buildings are commissioned. This is particularly so where designs include fire-engineered solutions, and the fire team has been involved in a significant number of “soft-landings” meetings to support and agree the designs developed for new buildings on the existing



campus and on the Western Infirmary site. This professional input is crucially important to ensure that these designs are suitable and that any change, or the conduct of building operations, does not compromise fire safety. Following this process, the James McCune Smith Building was handed over in 2021 with the Fire Risk Assessment also completed. The Advanced Research Hub (ARC) will be delivered in early 2022 with significant work and effort put in during 2021 to allow for this. Looking ahead, the next building to be delivered will be the Institute of Health & Wellbeing in 2022.

Major refurbishment activity elsewhere in the existing estate demands similar levels of advice and support. Work within existing occupied buildings continues, including significant fire improvements within the Boyd Orr Building and a major project for the School of Engineering within the James Watt North Building. On such refurbishment projects within existing and operational buildings, ensuring that work doesn't compromise escape routes or create risk to the occupants is always a primary objective of the fire safety team and is one of our safety-critical tasks.

Encouragingly, over 2100 staff completed the on-line fire safety refresher training, with 25 separate specialist fire safety courses also being delivered alongside this and aimed at those with specific fire safety roles such as Area Fire Officer and Fire Warden. This was achieved using a variety of means including face to face and virtual. We note an increased demand for fire warden training as units adjust to the different staff attendance patterns of hybrid working and seek to maintain fire warden cover.

With Covid restrictions continuing to have an impact on the level of occupation of our buildings and on the presence at work of staff who would normally perform fire warden duties, it was necessary to undertake a review of our fire safety arrangements and policy. As a result, the Fire Safety Policy was updated to clarify the expectations in relation to building evacuation and fire warden support and to acknowledge that whilst providing a useful support where available, safe evacuation does not depend on the presence of fire wardens.

The fire safety team continues to provide support to all building users regardless of location and this has recently included visits to our sites at East Kilbride, Dumfries and Rowardennan (HMO renewal).

### Fire risk assessment

No additional contracted support with fire risk assessment reviews was required by SEPS in 2021, as both of our Fire Safety Advisers were able to return to campus and carry out the necessary assessments as required, whilst considering the control measures in place at the time due to the Covid regulations. Sustaining this rate of assessment review is challenging alongside the demands of reactive work associated with new build and refurbishment activity. The fire safety team will seek to maintain the target pace of assessment. However, it is expected some significant new properties will be added to the building list during 2022, which will require an initial full fire risk assessment and so will add to the workload.

A breakdown of the fire risk assessments carried out in 2021 is shown below. These include 64 scheduled assessment reviews, and 2 new building assessments. The overall number involved demonstrates the scale of this work, with buildings ranging from Victorian terrace to 1960's large teaching/research buildings to the new James McCune Smith Building.

Premise Type	Number
Cat 1 - High Risk	17
Cat 2 - Med Risk	47
Cat 3 - Low Risk	1
Cat 4 – Very low risk	0
<b>Total assessments</b>	<b>65</b>

## **Monitoring and Auditing**

### **Internal auditing**

Due to Covid restrictions, work from home requirements and generally reduced on-campus work, the SEPS rolling internal safety management auditing programme remained in abeyance until November 2021. Since then, with some relaxation in national Covid restrictions, it was recommenced with an audit of the Archaeology Unit (School of Humanities). An agreed date was also set to audit the School of Physics in January 2022. Several other units will also be contacted, and audit dates agreed for early 2022.

The addition of Alex Shearer to the SEPS team will, when he has been trained in the process, make auditing by two-person teams a little easier than has been the case for several years, while we have had no one in the general safety role.

Despite the pause in formal management systems auditing, - an approach mirrored by several enforcing agencies - SEPS have remained very active in overseeing and supporting activities across the University through both 2020 and 2021 by way of inspection work, as detailed in the section below. This had been done in both a planned manner, in response to incidents and in a more targeted way as a result of requests from departments for advice and support.

### **External audits**

There were no external safety-related audits conducted during 2021 although we did receive enforcing authority inspection visits from HSE, CTSA and a post fire audit visit from SFRS. Details of these are provided within Section 7.

### **Inspections**

To maintain effective corporate oversight of our higher risk activities the BSA continued with the CL3 inspection programme across relevant laboratories at Gilmorehill and Garscube campuses with 4 inspections undertaken at the end of the year and actions discussed and agreed with the CL3 managers. A fabric repair was required in the REBL CL3 suite at Garscube following an ingress of water and the repair was required to be verified and communicated to HSE prior to the agreement to renew the existing SAPO licence.

As more areas returned to work the CSA has reinstated the ongoing programme of chemical and general safety inspections across the University. Over the course of the year he has undertaken formal inspections of 21 separate laboratories and workplaces working with local safety coordinators and senior staff to identify health and safety issues and make recommendations for remedial action and/or improvements as required. A breakdown of the areas visited can be seen below.

The inspections in the Institute of Molecular Cell and Systems Biology (MCSB) CL2 areas were jointly carried out by the BSA and CSA.

- MCSB (Davidson Building) x 4
- James Watt School of Engineering (Rankine / JWS) x 4
- School of Chemistry (JBB) x 12
- Lighthouse Laboratory (QEUH) x 1

Further informal inspections were also carried out covering the chemical waste stores and compressed gas cylinder store associated with the Davidson Complex. In both cases significant deficiencies were identified which have been addressed by the local support and administrative staff. One particular example involved discovery of a damaged, obsolete gas cylinder which was deemed sufficiently dangerous that immediate removal from campus via an explosives disposal company was necessary. This process was managed by the CSA, working with the Security Team during the COP 26 conference without causing any disruption to campus.

At the request of the interim director, chief technician and chair of the health and safety committee, the CSA accompanied them on a walk round of the Sir Graeme Davies Building (III) focusing on storage of hazardous

substances and identification of obsolete chemicals. The result of this walk round (and associated discussions) was a local “chemical amnesty” during which 7,500 obsolete chemicals were identified and disposed of via the University chemical waste contractor.

The CSA has also been involved in monitoring the statutory inspections of LEV and pressure systems undertaken on behalf of the University by Zurich highlighting deficiencies and necessary remedial actions to local safety coordinators / chief technicians as required. In March 2021 a serious defect was identified with an air receiver in the Joseph Black Building necessitating that some business-critical activities be suspended. The CSA worked closely with local support staff and Zurich to facilitate remedial works and reinspection to ensure that the equipment could be returned to service as soon as it was safe to do so while liaising with senior managers in the School and College to ensure they were kept informed.

## **Radiation Protection**

### **Contamination surveys**

Radiation labs contamination surveys restarted during 2021, due to ongoing Covid restrictions 13 contamination surveys were conducted. This was up from 0 surveys during 2020 but still short of our normal 30+ per year. Contamination surveys are part of our license conditions.

### **Source audits**

Another license condition, there were 18 source audits conducted during 2021, up from 8 the previous year.

### **Sealed sources**

Most of the sealed sources are held in the Kelvin Building. As part of our licence conditions these must be swab tested annually for leakage. See Section 5 for details.

### **Decommissioning**

Room 619 Robertson Building was decommissioned July 2021.  
Level 3 GBRC Building was decommissioned December 2021.  
The necessary paperwork was submitted to SEPA as required by our licence.

### **Dosimetry service**

420 whole body dosimeters are issued bi-monthly.  
30 eye dosimeters are issued bi-monthly.  
64 extremity dosimeters are issued bi-monthly.

### **Contamination Monitor Testing**

The University has around 300 contamination monitors available for staff, these must be tested annually for compliance with Ionising Radiations Regulations 2017. Of these 150 were tested (up from 40 in 2020), 4 monitors needed repaired (3 in 2020) and 130 needed replacement batteries.

### **Radioactive waste disposal**

There were no solid waste disposals during 2021.  
‘Dustbin’ solid waste disposals are no longer undertaken at Gilmorehill Campus, these continue at the Garscube Campus for radioactive cat litter and horse bedding, and these records are kept on-site.

Liquid radioactive disposals are detailed in Section 5, and there were no sealed source disposals during 2021.

## **Radiation safety courses**

All training courses during 2021 were moved to online delivery through the Moodle platform. See section 4 table for details.

## **Registered Radiation Workers**

There were 46 new registrations in 2021 for a current total of 416 registered radiation workers.

## **Move to electronic records**

Several measures have been put in place to reduce paper records in the service; an e-form for registering new radiation workers, issue of radiation safety certificates electronically as pdfs instead of paper and scanning/ digitizing all remaining radiation registration forms (much of this had already been carried out by a contractor on our behalf).

## **Occupational Health**

### **Health Surveillance**

Due to the pandemic, face to face health surveillance stopped in 2020 but questionnaire screening for lab animal allergy continued to be sent and screened until late March although the numbers were slightly lower because a number of researchers had been furloughed or were no longer working with animals.

### **Student Health**

The volume of student work during 2021 increased substantially, mainly due to the arrival of students who were unable to travel to Glasgow in 2020. As well as carrying out the highest ever number of blood tests and vaccinations, the number of student referrals also trebled. The Louisa Jordan hospital were extremely accommodating providing space for these huge clinics until it closed in June. The clinics subsequently reverted to the clinical skills lab within the medical school which always proves a challenge in terms of space and availability.

No elective work was undertaken for students in 2021 due to their inability to travel.

### **Client Feedback**

As part of ongoing SEQOHS accreditation, the Occupational Health Unit is required to undertake client feedback analysis. This is anonymous and uses a Survey Monkey questionnaire sent to all students and staff who have attended the Occupational Health Unit for any reason in a selected period (usually two months). A separate questionnaire goes to line managers of staff who have attended in order that feedback can be obtained from them.

A the time of the survey during 2021, patient consultations had moved to telephone and zoom calls. It was only possible to survey those employees who had been referred by their manager rather than, as was previously possible, all those who had attended OHU for any reason. Surprisingly those employees who responded to the survey were all very positive about the consultation and support provided with over 90 percent of respondents completely satisfied with the consultation and outcome.

Manager feedback was also positive with all respondents saying they were either completely, very, or fairly satisfied with the process and the feedback via the OH report.

### **Occupational Health Records and Report Sending**

Occupational health referrals are now an integral part of the Ivanti helpdesk system. Referrals are more easily tracked, and managers /HR receive reports back from OH much more quickly and securely. Feedback on the system has been very positive.

## **Wellbeing**

The Director of Health, Safety & Wellbeing worked with the Director of Organisational Development to agree the question set to measure workplace stress within the Pulse Survey.

The Director of HSW is a member of the Wellbeing Working Group which, over the last year or so, has developed a draft UofG Colleague Wellbeing Strategy which is currently undergoing consultation.

## **Business Continuity**

### **Exercising**

There were 2 post-covid lessons learned exercises delivered. In April, Denis Fishbacher-Smith kindly gave a half-day online session attended by around 30 colleagues across mainly academic areas. The Director of HSW delivered a second lessons learned exercise in August for a group of 20 colleagues across professional services.

### **Internal Audit**

September saw PWC conduct an internal audit of business continuity management. Whilst it recognised some good practice around policy and arrangements, it recognised the enormity of scale of planning for BC management in such a large and diverse institute as UofG and made several recommendations including suggesting a review of the current BC resource. The University has recognised this and recruitment for a new post of BC Officer is currently underway.

### 3. Collaboration and co-operation with external bodies

#### External Representation

The BSA was nominated at the start of the year to be a member of the UK Institute of Safety in Technology and Research (ISTR) Executive Committee and attended many meetings throughout the year. She took over as Chair of The ISTR UK Biosafety Steering Group which represents the interests of UK biosafety nationally and internationally on behalf of ISTR. She is also a member of the Events Steering Group for ISTR and gave input to the various events and 2021 conference where she helped procure speakers and chaired one of the sessions online at the 4-day Autumn Symposium 'Engineering for Safety'.

The CSA has continued to represent the University on the Management Group of the University Chemical Safety Forum (UCSF) which is an organisation dedicated to improving chemical health and safety in academia. He has organised and presented at two online conferences attended by chemical safety advisers from across the UK.

Following a small number of incidents involving compressed gas cylinders, the CSA was invited by BOC (Linde) to participate in an online working group to provide feedback on health and safety issues associated with compressed gases. This involved working with technical experts from higher education and other industries to answer technical questions, review safety innovations and make suggestions to help them develop safer cylinders.

All of the safety team are active participants in the Universities Safety & Health Association (USHA) and in our local branch, the Scottish Universities Safety Advisers Group (SUSAG). Examples of the main organisations with whom HS&W regularly interact are shown below.

- Advanced Procurement for Universities and Colleges Ltd.
- Association of University Radiation Protection Officers (AURPO)
- Chartered Institute of Waste Management (CIWM)
- Department of Energy and Climate Change – Chemical Weapons Convention licences. – annual return submitted based on information supplied by Schools/RI's in response to SEPS request.
- Department for Transport – enforcing authority for some aspects of transport of dangerous goods.
- Environmental Association for Universities and Colleges (EAUC)
- European Biosafety Association
- Glasgow City Council / Glasgow Life (HMO Licensing)
- Health and Safety Executive – incident investigations, notifications, biological
- HEBCoN – Higher Education Business Continuity Network.
- Home Office – Controlled Drugs/Drug Precursor licences
- Institution of Occupational Safety and Health – IOSH-accredited training courses
- Institute of Safety in Technology and Research (ISTR)
- National Counter Terrorism Security office (NaCTSO) – Biosecurity
- NHS Scotland – consultation re joint occupation of premises
- Northern Biological Safety Advisers Group – sector meetings
- Public Health Scotland
- Police Scotland – (Counter-terrorism security controls and explosives.)
- Royal Sun Alliance – Consultation on insurance liability issues and external audit.
- Scottish Ambulance Service (CTSA - Counter terrorism liaison)
- Scottish Environmental Protection Agency (SEPA)
- Scottish Fire and Rescue Service
- Scottish Government
- Society for Radiological Protection
- Scottish Universities Safety Advisers Groups (general, fire and chemical)
- University Chemical Safety Forum (UCSF) (Committee support)
- Universities Safety & Health Association (USHA)
- USHA Environmental sub-group
- USHA Fire sub-group
- Working group of Scottish Central Belt University Chemical Safety Advisers (University of Glasgow, University of Strathclyde, university of Edinburgh)
- Zero Waste Scotland
- Zurich Municipal – external statutory equipment examinations

#### 4. HSW University training provision and staff CPD

Although training was quite seriously curtailed in 2020, SEPS were able to deliver a more normal training programme during 2021. Due to lockdown restrictions all face-to-face training courses were suspended during the January to March period. Our training facility within the Isabella Elder room was initially limited to a capacity of only 4 (with 2m distancing) and so group training was impossible. Later in the year, when distancing was reduced to 1m, the capacity was raised to a maximum of 8 allowing some smaller group training to take place and we continue to make use of this capacity where we can. Booking of larger rooms is not normally possible due to academic teaching requirements having first claim on these and the room capacity limits meant that much of our training had to be done by online methods.

First aid training is one of our main deliverables and prior to Covid was provided in the Isabella Elder building via courses of 12 delegates plus a trainer. During the early part of 2021 we were unable to run courses on site at all. However, once restrictions were lifted in March we worked with our training provider to trial a new blended-learning course model. This is a 3-part course comprising three elements: i) Self-study (4 hours), ii) Trainer-led webinar instruction (6 hours), iii) Face-to-face classroom based practical session (2 hours). This courses model has had positive feedback from those who have taken part although a large number of staff still prefer to attend the face-to-face courses as a preference. We have been able to support this through face-to-face first aid training available at our trainer's city centre premises but they also had capacity restrictions, and so these courses accommodated fewer delegates than normal and have been correspondingly more expensive per delegate. Once distancing was reduced to 1m allowing the room capacity to be increased we were able to run some face-to-face courses on site but with a capacity of only 6 due to the practical work involved and space requirements needed for that.

The effect of these restrictions has been to massively increase the administrative burden on SEPS as we now must routinely arrange training for 1 and 2 people at a time where before we were arranging for groups of 12. Despite this we have met the demand for all required first aid refresher training and for initial training

A similar situation exists with our manual handling courses. As staff began to return to campus, we started to get enquiries about manual handling courses and were able to schedule a few courses throughout the year. However, customer demand for practical manual handling training has been reduced this year from normal level. We hope that face-to-face courses will be able to fully resume in 2022.

Our Mental Health First Aid Courses are overseen by Public Health Scotland and because of Covid, no courses were permitted to run during 2021. These courses will resume in January 2022, with one course planned each month until May 2022. We will then reassess the demand for this course from our waiting list and plan further courses.

We have been unable to run our usual programme of Institute of Occupational Safety & Health (IOSH) approved courses during 2020 or 2021 as IOSH have no approved online route for us to deliver these. As they are aimed at developing managerial competence on a longer-term basis and are not normally run frequently, that has not been a major issue. With an increased room capacity now available we are able to recommence this training and have a course scheduled for early March 2022.

On occasions we have been able to provide some types of face-to-face training within non-bookable areas and rooms under the control of other departments but made available by them for training of their staff. This has included some fire training and technical training such as compressed gases and cryogenics courses which would normally have been customer-hosted anyway.

Both the BSA and CSA have been able to provide regular online health and safety training in their specialist areas to staff and students across the organisation using Zoom and Microsoft Teams. These courses have continued to be well received and attended by staff and PhD students from across the University. The topics covered, number of sessions and number of individuals trained are set out in the table below. We feel that this has been a successful delivery of this training under the circumstances we face and a useful addition to our capabilities although not something that we'd want to use as a complete substitute for face-to-face training.

In addition to delivering formal health and safety training sessions, the CSA has also provided specialist input as part of a range of health and safety inductions for new PhD students in the School of Chemistry, Institute of Infection, Immunity and Inflammation and JWNC.

Participation in the online fire-safety training module is significantly increased from previous years with the Moodle system in which the training is hosted showing that 2151 staff undertook this training and passed the competence assessment. Additionally, 68 research students and 160 other students also successfully completed the training. The Moodle system is configured to automatically export records of completed staff training to staff CoreHR records and we expect in early 2022 to work with the HR team to make staff training records directly accessible to Schools via the Core "Insight" reporting system.

In December 2020 SEPS were able to add the online course "*Homeworking Essentials*" to our Moodle hosted options alongside our general "*Fire Safety*" course. The Homeworking course became live early in 2021 and Moodle reports indicate participation by 1731 individuals, with 1177 of these participants going through the full course and completing the assessment. 39 of the participants were students, the remainder being members of staff. As this is not a mandatory course, this shows that there has been a significant demand for this training and that it has been a useful resource.

Overall participation in the online computer/display screen equipment training is increased from 2020 but remains low in comparison to the '*Homeworking*' course. The latter course, although wider ranging, does contain similar content about computer workstations but does not provide a facility to carry out a workstation assessment which is, of course, a legal requirement.

The Head of SEPS and Director of HSW, with the Estates Compliance & Safety Manager reviewed, updated and re-recorded the videos for the Return to Campus online induction with much appreciated support from the Learning and Academic Development Service.



The following table shows the delivery of formal courses and training that was achieved during 2021.

### Courses and training delivered 2021

Subject	No. Courses	No. Attendees
<b>Induction</b>		
"e-Induction" online training for new staff		1892
Return to Campus online Induction		1910
<b>IOSH Accredited courses</b>		
IOSH Working Safely Course (1 day)	0	0
IOSH Managing Safely Course (4 day)	0	0
<b>General and specialist safety courses</b>		
Biological Safety and GM (1/2 day)	11	177 staff/students
Biological Module within PIL (45 minutes)	2	66
3Ills PGR Induction (1 hour PJR & 1 hour AG)	1	19 students
COSHH and Chemical Safety (3 hours)	8	194 staff/students
Chemical Emergencies (1 hour)	2	33 staff
Compressed Gas Safety (1 day)	2	36 staff
Cryogenic Refresher (2 hours)	4	103 staff/students
<b>Display Screen Equipment (online)</b>		
Training and workstation assessment fully completed	-	98
<i>Training element only completed.</i>		139
<i>Training element partially completed</i>		42
Overall participation		181
<b>Homeworking (online)</b>	-	
Participation in training element		1731
Completion of training and assessment element		1177
Manual Handling (1/2 day – external trainer)	6	86 staff
<b>First Aid Courses</b>		
First aid 3-day certificated course	2	10 staff
First aid external 3-day certificated course	42	89 staff
First-aid 2-day refresher course	3	23 staff
First-aid external refresher course	36	59 staff
Mental Health First-aid 2-day course	0	0
<b>Fire Safety Courses</b>		
Area Fire Officer (1/2 day)	11	63 staff/students
Fire Warden (2 hours)	13	87 staff/students
Living support staff fire awareness training	1	58 staff
Staff fire safety awareness training (online Moodle)	-	2151 (see note)
Radiation Protection (Attended)		65
Radiation Protection (Passed Examination)		(65)
Radiation Safety Refresher		4
X-Ray Safety Course		30
Laser Safety Course		23
<b>Totals</b>	<b>144</b>	<b>10,546</b>

Note: Figure as reported by Moodle

## Development of staff within Health, Safety & Wellbeing

The usual programme of staff development and CPD events continues to be much reduced with some events moving online. These, although easier to attend, lack the benefits of sector networking that forms a useful part of face-to-face events. All of the safety adviser team follow a professional body CPD programme under the auspices of the Institution of Occupational Safety and Health (IOSH). Some of the external engagement in which staff are involved are shown in Section 3 above.

The CSA undertook two substantial professional development activities over the course of 2021. He successfully completed an NVQ Level 6 qualification in Occupational Health and Safety Practice allowing him to move to a higher level of professional membership of IOSH (GradIOSH).

He also undertook a Dangerous Goods by Road training course delivered online by Peter East Associates to build his knowledge of the safe transport of dangerous chemicals and the application of ADR under the Carriage of Dangerous Goods and Transportable Pressure Equipment Regulations (CDG). This course has proven to be of particular value in advising academic members of staff in how to safely prepare consignments of hazardous substances for transportation and in preparing for the transport of hazardous substances to the new ARC facility.

The Radiation Protection Adviser undertook the 'Veterinary compliance issues with IRR and EPR' one-day webinar in November 2021.

The Radiation Safety Technician undertook a one-day laser management course in December 2021.

Subject	No. staff attending
Biological and GM safety (online)	1
BOC Gas Cylinder EVOS Working Group (online meetings)	1
Chemical Emergencies (online)	1
Covid return to campus video	1
Cryogenic Safety (face-to-face) 1 day)	1
Dangerous Goods by Road Course	1
Equality and Diversity Essentials	1
Fire online training	1
First aid refresher	1
HSW E-induction (online)	1
Homeworking Essential (online module)	3
Introduction to GDPR (online)	1
IOSH CPD programme (rolling professional programme)	5
IOSH membership upgrades to Grad IOSH	1
ISTR Autumn Symposium (live event over 4 days)	1
ISTR Executive Committee meetings (online ½ day x4)	1
ISTR Biosafety Steering Group meetings (online 2hr x 3)	1
ISTR Ventilation Discussion Forum (online 1 day)	1
Mental Fitness Webinar	1
Mentoring Training course (online)	3
NVQ Level 6 qualification in Occupational Health and Safety Practice	1
Procurement Level 2	1
Purchasing Officer training Level 1 and 2	1
Scottish Univ. Fire Advisers' Group (online)	2
Scottish Univ. Safety Advisers' Group (online)	4
Universities Chemical Safety Advisers Forum Conference (online 1 day x 2)	1
Veterinary compliance issues with IRR and EPR 1-day webinar	1
Laser Safety Management	1

## 5. Other Operational Activities

Activity	Description	Activity Total 2017 Blue 2018 Red	2019 Black 2020 Green 2021 Purple
<b>Occupational Health</b>			
Bloods	All bloods in OHU diary plus additional numbers from September screening and May titre clinic	(682) 706 1022	859 1718
DNA	Staff/students who didn't attend appointment	40 19 99	(Ivanti system introduced)
Management Referral	New referrals	(273) 296 304	223 253
Management Referral - Returned	Returned to the referring manager due to insufficient/incomplete info on referral paperwork.	(22) 8 10 6	
Management Referral - Not Actioned	Referral arrived at the OHU, further discussion with referring manager indicated referral not appropriate.	(3) 6 6 6	
Review Appts	Management referral review appointments	(256) 189 198	24 158
Health Surveillance	All health surveillance appointments at Occupational Health and paper screening. This figure also includes medicals for CERN, ionising radiation medicals and any HAVS appointments for the Occupational Health Physician.	(564) 366 324	273 204
Elective Work for students	Comprising: Elective consultations, elective paperwork completion and pre-employment FY1 paperwork completion	(100) 92 123 0 0	
Fitness to Practice for students	Undergraduate students from MVLS referred to OH.	(39) 28 29 26 73	
MVLS Student Screening at Wolfson Medical School	New undergraduate Students attending for their health screening at Wolfson Medical School (start of term)	(544) 438 550	567 744 (due to adding students who weren't in Glasgow in 2020)
Research Passports	Research passport paperwork processed at OHU	(62) 41 37 28 22	
Vaccinations	All Staff and Student attendances for vaccinations	1148 728 1306	
<b>Radiation Protection</b>			
Ionising Radiation	Registration of new workers	(84) 416	
	Registration of classified radiation workers	(0) 0	
	Issue of Personnel dosimeters	(436) 514	(420 whole body, 30 eye and 64 extremity dosimeters)
	Radiation Monitors testing (4 required repairs, 130 batteries replaced)	(40) 150	
	Swab tests of sealed sources (all passed)	(170) 176	
	X-ray surveys (include electron microscopes and dedicated X-ray units)	(14) 0	
Radioactive Substances	Contamination Surveys	(0) 13	
	Source Audits	(8) 18	
	De-commissions (includes one downgrade of a Controlled Area to a Supervised Area)	(2) 2	
	Isotope Order Management	(89) 130	
	Contractor Disposals of solid waste	(2) 0	
	Liquid Waste Disposal - Gilmorehill	(1081) 2802.2 MBq	
	Liquid Waste Disposal - Garscube	(79) 256 MBq	
Non-Ionising Radiation	Laser Surveys	(0) Schools	

## 6. University Performance Indicators

Table 1 Summary of incidents reported in 2021.

2021	Animals	Electricity	Explosion	Fall/Level	Fall/Stair	Fall/Height	Fire*	Handling	Glass/Sharps	Hand Tools	Hot/Cold	Machinery	Spill/Release	Sport	Strike Against	Struck by	Traffic	Other <sup>(inc medical)</sup>	Occ. Disease	Violence	Totals
Staff	13	1		18	4			4	20		3		24		16	17			1		121
UG Students	9							1	15				6		1	1			1		34
PG Students	3								11		3		11			2					29
Visitors/other	1				1										1						3
<b>Total minor and over 3-day</b>	<b>26</b>	<b>1</b>		<b>18</b>	<b>4</b>			<b>5</b>	<b>46</b>		<b>5</b>		<b>41</b>		<b>18</b>	<b>20</b>			<b>2</b>		<b>187</b>
<b>RIDDOR reportable incidents</b>				<b>2</b>	<b>1</b>	<b>1</b>						<b>1</b>	<b>1</b>		<b>1</b>				<b>2</b>		<b>9</b>
<b>TOTAL work-related injuries</b>	<b>26</b>			<b>20</b>	<b>7</b>	<b>1</b>		<b>5</b>	<b>46</b>		<b>5</b>	<b>1</b>	<b>42</b>		<b>19</b>	<b>20</b>			<b>4</b>		<b>196</b>
<b>Work related injuries by year</b>																					
<b>2020</b>	20	1		18	3			8	52		5		27	2	8	13	2	1	3	1	<b>164</b>
<b>2019</b>	38			36	14	1		11	62		9	1	36	2	19	25	3		3	1	<b>261</b>
<b>2018</b>	35	3		37	16			12	92		9	1	35	1	17	19	1	1	6	2	<b>266</b>
<b>2017</b>	30	2		34	18	1	1	10	79		9	1	40		21	27	1	4	2	1	<b>281</b>
<b>2016</b>	32	2		20	10		1	16	88		3	5	34		22	24		3	5		<b>265</b>

<b>Other incidents - 2021</b>																					
DO / Near Miss		3		1			7	5	3			1	108			5		3			136
Not work-related				4		1			1					15				17			38
Contractors								1	1						2	2					6

\*Fire category covers incidents involving injury from fire only.

<b>STAFF all injury incident frequency rate</b>	<b>15.5 per 1000</b>	Comparator: SUSAG 2019 16.7 per 1000 SUSAG 2020 12.8 per 1000	Based on 122 minor incidents plus 3 RIDDOR (Total 125) and staff headcount of 9854 at Sept 2021 (Source UofG FOI webpage)
<b>STUDENT all injury incident frequency rate</b>	<b>1.9 per 1000</b>	Comparator: SUSAG 2019 2.0 per 1000 SUSAG 2020 1.6 per 1000	Based on 63 minor incidents plus 4 RIDDOR (Total 67) and student headcount of 34811 (Source UofG FOI webpage)

**Table 2: RIDDOR incidents reported to enforcing authority in 2021 by reporting criteria**

Description of incident	Category	Totals
<b>“Major” Injuries (RIDDOR defined)</b>		
Fall on stair within University building. No stair defect but face covering may have been contributory. (Staff)	Fall on stair	1
<b>Over 7-day incidents (RIDDOR defined)</b>		
Crush injury to thumb sustained while manually adjusting pallet forks on agricultural machinery. (Staff)	Machinery	1
<b>Student/public to hospital for treatment</b>		
Fell on loose ground surface outdoors while on work placement. (Student)	Fall on level	5
Fell on uneven flooring within University building during exercise activity. (Student)	Fall on level	
Struck head on underside of x-ray equipment when standing up close to it. (Student)	Struck against	
Fell from chair being incorrect used as a means of access. (Student)	Fall from height	
Trapped finger in door in sports facility. (Visitor)	Struck by	
<b>Reportable dangerous occurrence</b>		
No reportable dangerous occurrences recorded.	n/a	0
<b>Reportable occupational disease</b>		
Covid infection possibly associated with spillage while handling a test sample. (Staff)	Occupational disease	2
Tendonitis diagnosed in staff member who carries out repetitive lab analysis work. (Staff)	Occupational disease	
<b>TOTAL RIDDOR REPORTABLE INCIDENTS</b>		<b>9</b>

Note: Total remains lower than the long-term average probably because of continuing reduced levels of practical work due to Covid. Historically, levels would most typically be around 15 incidents per year, but numbers do vary both upward and downwards between years.

**Table 3: Fire incidents 2021**

<b>Building</b>	<b>Probable Cause</b>
<b>Major fires</b> (significant damage beyond part of building immediately affected)	<ul style="list-style-type: none"> <li>• A significant fire occurred within a laboratory in Wolfson Link Building resulting in severe damage to the laboratory. The cause was unexpected ignition of natural gas most likely due to a leak or detachment of the Bunsen gas supply tubing. (March 2021) (SFRS Post-fire audit)</li> </ul>
<b>Minor fires</b> (localised fire or minor incident only)	<ul style="list-style-type: none"> <li>• Combustible materials near cooker accidentally ignited – Lister House. (April 2021)</li> <li>• Bower Building (April 21- Compressor unit overheated Blatt Lab Room 231)</li> <li>• Error in operation of remotely operated equipment led to overheating and melting of components. (May 2021 SUERC)</li> <li>• Small bench fire due to use of heat gun near silica gel (May 2021 JBB)</li> <li>• South Park Terrace (Cooking close to combustible materials. June 21)</li> <li>• Generator within Wolfson Medical Building (July 2021) (SFRS – Post-fire audit)</li> <li>• Significant overheating of a fluorescent light fitting ballast in Maclay Residences. (Sept 2021) (SFRS – Post-fire audit)</li> </ul>
<b>Other (Near Miss)</b>	<ul style="list-style-type: none"> <li>• Small Animal Hospital (May 21- Overheating vending machine)</li> <li>• Davidson Building (July 21 – Overheating fridge - smoke)</li> <li>• Rankine Building (July 21 Overheating light fitting room 805 smoke)</li> <li>• Biomedical Building L5, it was identified that a machine in a lab had overheated and began smoking which caused the fire alarm detector head to activate (October 21)</li> </ul>
<b>External</b>	<ul style="list-style-type: none"> <li>• Drynoch Place (July 21 external fire leading to minor internal fire damage).</li> </ul>

**Table 4: Fire alarm incidents and activations 2017 – 2021**

	2017	2018	2019	2020	2021
<b>Genuine incidents</b>					
Major fire	0	0	0	0	1
Intermediate fire (cat. introduced late 2015)	4	5	0	0	0
Small fire	5	4	10	3	9
External fire	2	1	3	0	5
Near miss		1	3	0	1
<b>TOTAL GENUINE</b>	<b>11</b>	<b>11</b>	<b>16</b>	<b>3</b>	<b>16</b>
<b>Unwanted activations</b>					
Accidental activation (good intent)	4	6	1	3	6
Alarm faults	6	13	15	8	32
Contractor activity/building work	22	20	33	18	23
Cooking	24	26	22	7	33
Deliberate/malicious	1	3	2	2	2
Occupant activity (other than cooking)	15	29	30	14	34
Water ingress/damp/steam	14	10	13	12	11
Unknown cause (unable to be determined)	33	32	41	26	77
Dust	3	5	4	10	3
<b>TOTAL UNWANTED</b>	<b>122</b>	<b>144</b>	<b>161</b>	<b>100</b>	<b>221</b>
<b>TOTAL ALL INCIDENTS</b>	<b>134</b>	<b>155</b>	<b>177</b>	<b>104</b>	<b>237</b>
<b>Of which activations in residential properties: -</b>					
	23	28	31	14	79

**Table 5: Detail of Unwanted Activations for 2018 - 2021**

<b>Year</b>	<b>No of Incidents</b>	<b>Fire Service attendance Of total</b>	<b>As a % of Total Incidents</b>	<b>Attendance for Fire Incidents (no of incidents)</b>	<b>Attendance for non-fire Incidents (no of incidents)</b>	<b>Attendance for Residential (no of incidents)</b>
<b>2018</b>	155	56	36%	10	46	28
<b>2019</b>	176	48	27%	8	40	23
<b>2020</b>	104	26	24%	1	17	8
<b>2021</b>	237	98	41%	8	11	79

**7. Enforcing authority contact, visits and interventions.****Home Office**

Our routine annual chemical weapons declaration was requested by the Home Office in December 2021 and a request issued to relevant unit to provide the required data. The legally required return was submitted, on time, by SEPS in January 2022.

**Health and Safety Executive (HSE)**

The Health and Safety Executive's (HSE) Microbiology and Biotechnology Unit undertook a part online and part physical inspection of CVR Specified Animal Pathogens Order (SAPO) activities in connection with renewal and addition of a significant change to the licence. HSE will consolidate this (once issued) with another University SAPO licence that was renewed at the start of the year for SAPO work within IBAHCM. The physical inspection was preceded by a remote desktop discussion attended by the Biological Safety Adviser and relevant CVR staff. This visit is detailed within the Biological Safety section above. The Unit responded in writing to a number of points raised by HSE immediately following the inspection and HSE were satisfied they were adequately addressed and points closed directly. No operational deficiencies were identified during this visit other than the need to complete an ongoing structural repair to the facility that was in progress and had previously been notified to HSE.

**Scottish Fire and Rescue Service (SFRS)**

Routine contact has continued over 2021, with contact during a number of post-fire audit incident, the most significant being that following the fire within the Wolfson Link Building in March 2021. Two other post fire audits were carried out following incidents involving failure and overheating of electrical equipment. Neither incident was due to any maintenance deficiencies and no enforcement action was taken on any of the incidents.

**Police Scotland Counter Terrorism Security Adviser (CTSA)**

The BSA met with our relevant Counter Terrorist Security Advisers at Police Scotland by Teams and specific area personnel for two of our annual security inspections in relation to Home Office regulated materials. There were no concerns in relation to Biosecurity.

**Scottish Environmental Protection Agency (SEPA)**

There have been no site visits or contact by SEPA in 2021 involving SEPS. Routine renewal of our annual licence to permit composting operations at Garscube, carried out by the Estates Grounds team is currently in progress.



## 8. Major activities and key objectives for 2022

At the time of writing it seems likely that Covid will continue to have some influence on our work for most of 2022. Safety advisory and incident investigation functions are considered routine tasks and are not specifically highlighted below but our other specific planned objectives are given some detail.

- Develop a new Moodle based general safety induction
- Continue support to aid onward development and uptake of the University travel portal
- Support the University's ongoing Covid management plans
- Recommence the SEPS safety management audit programme
- Review the SEPS auditing tool
- BSA to deliver targeted pre-planned CL2 inspections
- Review of SAPO policy document and monitoring of SAPO activities
- Continued support to the ARC as it is handed over and gets up to full capacity and range of activities
- Development of a guide to safe management of research groups
- Review of the fire risk assessment tool and programme
- Review of impact of new campus zoning arrangements on named persons roles
- Implementation of a new incident reporting tool on Ivanti platform
- Delivery of a suite of waste management training
- Consideration of options for environmental auditing
- Training of Radiation Safety Technician in Laser Safety in preparation to likely legislative requirement for a Laser Safety Adviser
- Continued evaluation of administrative systems with a view to further streamlining, reduced paper usage and smaller carbon footprint.
- Recruitment of Business Continuity Officer to address the recommendations of the Internal Audit report and provide the calibre of BC management advice and support appropriate to the University's operations.