GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM

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| Site | **Chemical Engineering** | **Department** | **Chemical Engineering** | **Version / Ref No.** | **Chem Eng Covid- V10** |
| **Activity Location** | **Chemical Engineering, Building 1310** | **Activity Description** | **Return to Campus COVID-19: Building Risk Assessment****Total of 70 persons including School staff, postgraduate research students, contractors, cleaners and Estates staff**  |
| **Assessor** | **Jacqueline Deans** | **Assessment Date** | **18th January 2021** | **Date of Assessment Review** | **1st March 2021** |
| **Academic / Manager Name** | **Prof M.J. Simmons, Head of School** | **Academic / Manager Signature** | **Diagram  Description automatically generated with low confidence 18/1/2021** |

| Hazard Assessment | Control Assessment | Actions |
| --- | --- | --- |
| Hazard Category | Hazards Identified | Who might be harmed?StaffStudentsContractors Others | How might people be harmed? | Existing Control Measures | Initial Risk Rating | Are these adequate?Yes/No | Changes to/ Additional Controls | Residual Risk Rating | Owner | Due Date | Action Complete |
| S | L | R | S | L | R |
| Organisational | Psychological well being | Staff, students | Anxiety and stress caused by concerns around returning to work and studies on Campus | Regular communication is in place (individual and group) via weekly Head of School briefings, School Committee, School Health and Safety Committee and team meetings and 1-to-1 meetings which are normally held on zoom or skypeto ensure staff and students are not ill-informed about returning to work/ study safely.Advice is shared with staff members and staff have been fully briefed and kept up to date with current advice on staying protected through the University’s lines of communications (i,e line managers, Internal Comms) and shared with staff via weekly Head of School briefings and staff mailing lists. Notes of meetings will be available from the School CEN-StaffShared network drive and the University’s Coronavirus FAQs [click here](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx).  An electronic copy of this general risk assessment can also be found in the CEN-StaffShared network drive and also on the School Health and Safety Canvas course.Risk assessment shared and an electronic copy is available on the CEN-StaffShared network drive in the folder Health and Safety Documents and also on the School Canvas Health and Safety course. New workplace/controls put in place to reduce risk of exposure to COVID 19 are documented in procedures and policies and disseminated to employees through Line Managers and one to one meetings These include:* ***Social distancing: General guidance for staff and students***
* ***Social distancing: Buildings adaptations guidance***
* ***Social distancing***: ***Product solutions booklet***
* ***Social distancing: Building checklist***
* ***On-line induction materials for returning to campus***: combination of the guidance and videos.

<https://intranet.birmingham.ac.uk/staff/coronavirus/essential-resources-and-checklist.aspx>* ***Return to Campus COVID-19: Building Risk Assessment* (This completed Risk Assessment)**

Line managers are aware of how big changes to working arrangements may cause additional work-related stress and affect their employees’ mental health and wellbeing and individuals have been made aware via the building induction, Head of School staff meetings, *one to one meetings and health and safety committees)* of guidance available in relation to this: of guidance available in relation to this: <https://www.hse.gov.uk/stress/><https://intranet.birmingham.ac.uk/staff/coronavirus/Coronavirus-wellbeing-support.aspx><http://www.selfhelpguides.ntw.nhs.uk/birmingham/leaflets/selfhelp/Stress.pdf> | 3 | 3 | 9 | Yes |  |  |  |  |  |  |  |
| Organisational | Psychological well being | Staff and Students | Anxiety and stress caused by concerns around returning to work on Campus | Managers hold regular informal discussions with their staff via one to one meetings either in person or via online Teams, Skype or Zoom with their team and look at ways to reduce causes of stress.  Concerns on workload issues or support needs are escalated to line manager as and when managers are informed and issues are escalated to Head of Operations or Head of School as appropriate.Staff/students who *should not* under any circumstance work on campus have been identified and managers/supervisors have discussed alternative arrangements with them to ensure that they do not return to work on campus. Staff who *should not* under any circumstance work on campus include:* Any member of staff who has been through a return to work on campus assessment and has been advised by Occupational Health or a medical professional (including a midwife in respect of pregnancy) not to travel to work on campus.
* Staff in the clinically extremely vulnerable category (those shielding) for whom current guidance is that they should not to travel to work, even where their work cannot be undertaken remotely.

<https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19#who-is-clinically-extremely-vulnerable>Existing risk assessments including those for new or expectant mothers reviewed and revised to reflect new working arrangements. Reasonable adjustments made, including those needed for PEEPs especially in relation to who will assist with their evacuation in an emergency, to avoid staff that require them including disabled workers being put at a disadvantage. Employees who have concerns about either continuing to work on Campus or working from home/remotely have discussed these with their line manager or supervisor and where necessary an occupational health referral has been made using the Occupational Health Referral for Covid-19 Assessment Form.<https://intranet.birmingham.ac.uk/hr/wellbeing/index.aspx><https://intranet.birmingham.ac.uk/hr/documents/public/Wellbeing/Covid-19-Return-to-Campus-Discussion-Form.docx>Employees are made aware of support mechanisms available to them (e.g. counselling, occupational health, HR, etc.) through line managers, internal communications and University webpages: <https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx><https://intranet.birmingham.ac.uk/hr/wellbeing/index.aspx><https://intranet.birmingham.ac.uk/hr/wellbeing/workhealth/index.aspx>This link is for students:<https://intranet.birmingham.ac.uk/student/coronavirus/Wellbeing.aspx> | 3 | 3 | 9 | Yes |  |  |  |  |  |  |  |
| Biological | Virus transmission in the workplace | Staff and Students | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | ***Social distancing: Chemical Engineering Building checklist***has been completed to identify the control measures to consider reducing the risk of workplace infections.Staff to work using the mixed model of site and home based as agreed with line manager, in line with Government and University guidance. Managers/supervisors ensure staff and students with any form of illness do not attend work/campus until the illness has been verified as not being Covid-19. Managers/supervisors keep track of when staff and students can return to work/ Campus after the symptom free period. Regular access to the Lateral Flow Device screening tests provided to staff and students who are coming onto campus.The University’s [***On-line induction materials for returning to campus***](https://intranet.birmingham.ac.uk/staff/coronavirus/essential-resources-and-checklist.aspx) combination of the guidance and videos have been provided and completed for all staff working in University buildings*.* To help with consistency and adherence to building specific measures such as access routes, occupancy limits etc. staff from other departments accessing the building (such as cleaning and Estates) have received a building specific induction including information and on site induction.Schedules for essential services and contractor visits revised to reduce interaction and overlap between people and building managers and occupants informed of when the visits will take place and which services are being maintained e.g., by arranging out of hours servicing where possible. Un-essential trips within buildings and sites prevented and discouraged e.g. access to some areas restricted, use of telephones encouraged and ensuring cleaning between uses. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Environmental | Virus transmission in the workplace due to lack of social distancing  | Staff and Students | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | Only essential work authorised and approved by the Government and University is permitted in University buildings. Workplace routines changed to ensure room/building capacity calculated to maintain at least 2m social distancing is not exceeded including: * Change to peak staff entry and exit times. Building opening hours have been reduced to 8am to 6pm Monday to Friday.
* Staff using public transport have been advised to avoid travelling at peak times*.*
* Changes to core working hours. This allows a two shift pattern to operate and reduces the number of people in the building at any time.
* Amended shift routines, staff handovers and team briefings. Team briefings are mostly online. Some labs and offices are timetabling staff rotas which are available online.
* Arrival and departure times at work have been staggered to reduce crowding into and out of the workplace, taking account of the impact on those with protected characteristics.
* Staff have been separated into teams to reduce contact between employees. Offices may only be used between experiments.
* Adjusted booking processes in use to reduce the number of people in a lab at the same time to avoid overcrowding.
* Lab occupancy controlled by research groups, mainly by spreadsheet timetables.

To help contain clusters and outbreaks and assist the University with any requests for data by the NHS Test and Trace service a temporary record of shift patterns and teams and attendance in the building is kept for 21 days. NHS Test and Trace QR code is displayed in the building for visitors and staff to scan using the NHS Covid-19 app.Procedure in place for dealing with instance of unexpected individual e.g. refused entry and told to make an appointment so a building induction can be arranged.Work has been arranged so that staff are able to maintain the government guidelines for social distancing based on our industry which are included in the ***Social distancing: Chemical Engineering Building checklist***(The latest Guidance on these measures can be found by clicking the following link [Social Distancing Guidelines](https://www.gov.uk/guidance/social-distancing-in-the-workplace-during-coronavirus-covid-19-sector-guidance#shops-running-a-pick-up-or-delivery-service)). Due to the potential increased risk of transmission from aerosol transmission steps have been taken to avoid people needing to unduly raise their voices to each other e.g. not playing music or broadcasts at a volume that makes normal conversation difficult.One-way flow systems implemented and visual aids, such as floor strips, signage are used for maintaining social distancing two metres distance throughout the building/workplace.Staff activities are segregated to promote the 2m social distancing rules including: * Offices arranged in checkerboard formation so no person is sitting side by side with or facing a colleague. Staff arranged in groups and only allowed in on alternate days to accommodate two bubble groups. Display Screen Equipment (DSE) assessments reviewed and revised.
* Areas of work marked out with floor tape to ensure adequate social distancing is in place. Visual management aids in place to remind people of the need for social distancing.
* Headcount capacity to ensure social distances standards have been achieved have been set and displayed in shared rooms e.g. open plan offices, meeting rooms and laboratories.
* Capacity limits have been set for common facility areas e.g. toilets, welfare areas etc.
* Staff encouraged to remain on-site including bringing their own lunch and, when not possible, maintaining social distancing while off-site.
* Welfare areas moved to create 2m social distancing separation and avoid large groups congregating. Kitchen uses a one out one in policy. All users are encouraged to wash their hands prior to using equipment or tables and to wash their hand after use. Additional signage for the correct method for handwashing displayed.
* Social distancing is marked on the corridor floor prior to entry to the WCs (toilets). Smaller facilities have a one out one in policy. Additional signage has been placed on facilities doors to announce people’s presence and to ensure hands are washed via correct method for handwashing prior to and after use. Building users are reminded to leave the facilities in a respectable condition
* Clear method of socially distancing of staff and visitors in reception areas defined and implemented including:
* Queuing systems or processes
* 2m Social distancing in waiting and reception areas
* Visitors asked to email for an appointment in advance so a building induction can be arranged.

Visits from people outside of the building are managed via remote connection/working where this is an option. Where this is not an option including engineer visits to repair or set up new equipment, visitor arrangements have been revised to ensure social distancing and hygiene at all times. These measures are monitored by the local supervising staff member- School Technical Managerand where necessary concerns fed back to the third party manager.All corridors are :* Marked in areas to ensure social distancing is adhered to (lines on floor).
* Have a one way system around the building.
* Corridors that are over 2 m wide have a two way system of use, people using the corridor must stay to their left.

Additional signage in corridors reminding staff about social distancing.Information provided and signs displayed informing people to use the stairwells rather than lifts unless they have difficulty using the stairs. The maximum occupancy of the lift has been reduced to one unless a user of the lift has a carer in which case it is 2*.* Once users have left the lift posters are displayed to encourage them to wash their hands and avoid touching their face.Lifts are still to be used to move heavier / larger / hazardous goods as a planned operation with staff placed on each floor to prevent access to lift until equipment moved. There are designated stairwell for going up and a designated stairwell for coming down, this system will be enforced.Buildings with a single stairwell or stairwells over 2m are separated down the centre to try and achieve social distancing. Building users using these stairwells have been informed by posters displayed at the foot of stairwells to announce themselves prior to use and to keep to the left.Additional signage in stairwells reminding staff about social distancing.Wash hands / use hand sanitiser on exit from stairwell.Social gathering amongst employees are not permitted whilst at work.Large gatherings including University events organised in public outdoor spaces have been cancelled or postponed. Critical Training courses may still be performed but only following the Government and University Covid-19 guidance.Managers perform frequent evaluation against social distances controls and remind individuals where instances are observed or reported of non-compliance, providing additional training where necessary. Staff are reminded constantly through email communication, posters and signage on a daily basis of the importance of social distancing both in the workplace and outside of it. Near-miss reporting is encouraged to identify where controls cannot be followed or people are not doing what they should.Only essential work authorised and approved by the Government and University is permitted in University buildings. Where the 2m social distancing guidelines cannot be followed in full, for example, training of users on laboratory equipment, this training has been discontinued to reduce the risk of transmission between staff.Where essential activities need to continue all the mitigating actions possible to reduce the risk of transmission between staff have been included in a task specific risk assessment and are being taken. Mitigating actions include: * Keeping the activity time involved as short as possible.
* Further increasing the frequency of hand washing and provision of hand sanitiser and surface cleaning.
* Using back-to-back or side-to-side working (rather than face-to-face) whenever possible.
* Reducing the number of people each person has contact with by using ‘fixed teams or partnering’ (so each person works with only a few others).
* Re-organising pedestrian flows

Individuals (including staff and contractors), unless exempt, are required to wear face coverings, inside all University buildings at all times except for at their place of work (desk, work bench, equipment work station etc.) where a separate risk assessment will cover these activities. Working in a single occupancy room will not require a separate risk assessment.Information provided in the University and local communications and local inductions and signs displayed informing people of the mandatory requirement to wear a face covering within the building.Individuals, unless exempt, are required to wear face coverings, in all University learning environments, where the use of the face covering does not impact teaching and learning. Information provided in the University and local communications and signs displayed informing people of the mandatory requirement to wear a face covering within the building.Individuals have been reminded through signage throughout the building and during inductionof how to use face coverings safely including the following:When wearing a face covering you should:* wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser before putting a face covering on
* avoid wearing on your neck or forehead
* avoid touching the part of the face covering in contact with your mouth and nose, as it could be contaminated with the virus
* change the face covering if it becomes damp or if you’ve touched it
* avoid taking it off and putting it back on a lot in quick succession (for example, when leaving and entering buildings)

When removing a face covering:* wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser before removing
* only handle the straps, ties or clips
* do not give it to someone else to use
* if single-use, dispose of it carefully in a residual waste bin and do not recycle
* if reusable, wash it in line with manufacturer’s instructions at the highest temperature appropriate for the fabric
* wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser once removed

PPE is provided for individuals working in close contact roles for example, first aiders. The taking of PPE home is not permitted.Adequate training has been provided on what PPE is required i.e. gloves, masks, aprons, Filtering Face Pieces (P3), goggles, the correct donning/doffing of PPE and face fit testing. Government advice is followed:<https://www.gov.uk/government/collections/coronavirus-covid-19-personal-protective-equipment-ppe><https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings>PHE quick guides for correct donning and doffing of PPE for [non-AGPs.](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures) as well as for[AGPs](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures) has been utilised for examples in best practice for putting on and taking off (donning and doffing).  | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Biological  | Suspected case of COVID-19  | Staff and Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Response plan in place in the event of a confirmed or suspected case of COVID-19 and communicated and includes:* If a person becomes unwell in the workplace with suspected COVID-19, they will be sent home in accordance to the University guidance. If any students appear unwell or make comment or complain to staff members that they are feeling unwell they will be asked to leave the building with immediate effect and to follow the University and Government advice. Managers will follow the NHS Test and Trace workplace guidance: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance>
* The area will be cleaned in accordance with the specific Government [guidance](https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings)
* Provision and monitoring of adequate supplies of cleaning materials are in place.
* Team briefed during induction and via email communication both within the School and via University emails on actions to be taken in the event of someone being suspected of having COVID-19.
* Staff must tell their line manager if they develop symptoms. Absence will be managed in accordance to the University guidance provided.
* Employees to follow the Government advice: <https://www.gov.uk/coronavirus>
* Line managers will maintain regular contact with staff members during this time, in accordance with the University sickness absence guidance and monitor for signs of symptoms in the remaining workforce and keep Senior Managers informed of the situation whilst following the Government’s guidance for contact tracing: contact with co-workers: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance>
* If an individual tests positive for COVID-19 this will be managed in accordance with the University’s [Test, Trace and Protect Process](https://intranet.birmingham.ac.uk/staff/coronavirus/test-and-trace.aspx).
* If multiple cases of coronavirus appear in a workplace, an outbreak control team from either the local authority or Public Health England will, if necessary, be assigned to help the University manage the outbreak. The University will seek advice from the local authority in the first instance.
* Individuals will be told to isolate because they:
	+ have coronavirus symptoms and are awaiting a test result
	+ have tested positive for coronavirus
	+ are a member of the same household as someone who has symptoms or has tested positive for coronavirus
	+ have been in close recent contact with someone who has tested positive and received a notification to self-isolate from NHS test and trace.

<https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection> | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Biological | Someone entering the workplace with COVID-19 | Staff and Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Companies who regularly attend or work in the building requested to provide their health and safety policy/arrangements / or RAMS (risk assessment and method statement) regarding COVID-19. Anybody visiting site will be informed that they are not to enter if they’re experiencing COVID-19 symptoms or should be self-isolating under the government Guidelines.If a person becomes unwell in a University workplace with suspected COVID-19, they will be sent home in accordance to their company’s and University’s guidance. University managers will follow the NHS Test and Trace workplace guidance for any University staff that may have come into contact with them: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance> | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Environmental | Virus transmission in the workplace | Staff and Students | Contact with an object that has been contaminated with COVID-19 and which subsequently transmits this to another person e.g. surfaces, any inanimate objects & touch points including work surfaces, work equipment, door handles, banisters, chair arms and floors. | Individuals have been instructed and are regularly reminded through posters displayed throughout the buildingto clean their hands frequently with soap and water for 20 seconds and the importance of proper drying in accordance with the NHS Guidance:<https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/> Soap and water and hand sanitiser are provided in the workplace and adequate supplies are maintained and are placed at the entrance to the building and in other areas for example, outside lifts, laboratories and welfare areas where they will be seen.Individuals have been informed to check their skin for dryness and cracking and to inform their line manager or supervisor if there is a problem.Individuals are reminded to catch coughs and sneezes in tissues – Follow: “Catch it, Bin it, Kill it” and to avoid touching face, eyes, nose or mouth with unclean hands. Posters are displayed around the workplace.To help reduce the spread of coronavirus (COVID-19) individuals are reminded during inductionof the public health advice:<https://www.gov.uk/government/publications/coronavirus-outbreak-faqs-what-you-can-and-cant-do/coronavirus-outbreak-faqs-what-you-can-and-cant-do>A review of the cleaning regime for the building/area to ensure controls are in place to keep surfaces clean and free of contamination has been undertaken, cleaning products and disposable cloths have been made available to all occupants and everyone has been briefed during inductionon the importance of keeping surfaces and work equipment clean. There is limited or restricted use of high-touch items and equipment, for example, printers. Staff have been advised by email to limit the use of photocopiers and printers to prevent exposure to coronavirus and to reduce costs.Sharing of equipment is restricted where possible. Additional time should be added to equipment bookings to account for time spent cleaning items before and after use. Objects and surfaces that are touched regularly are cleaned frequently using alcohol based wipes such as door handles and keyboards, and making sure there are adequate disposal arrangements.Internal doors that **are not** signed as fire doors (unless held open with a mechanical device) kept open whilst working (last person out shuts the doors) to prevent multiple people using door handles. Use of hot desks avoided. Workstations are cleaned by desk occupant and alcohol wipes have been provided. Shared workstations for example for shared facility equipment are cleaned by the user with alcohol based wipes before and after each session.There is clear desk policy in place to reduce the amount of personal items on desks and work benches to be practiced when the space is in use or not in use.There are cleaning procedures for goods and merchandise entering the site. Greater handwashing and handwashing facilities have been introduced for workers handling goods and merchandise and hand sanitiser provided where this is not practical. Non-business deliveries stopped, for example, personal deliveries to workers.Areas where people directly pass things to each other, for example office supplies, have been identified and ways to remove direct contact, such as using drop-off points or transfer zones have been introduced.Everyone is encouraged during induction to keep personal items clean including washing spectacles with soap and water, clean phones, keyboards and shared machinery handles etc. before after and during work. More locker storage for workers provided for clothes and bags and staff are encouraged to use them or to store personal items in locked pedestal desks within offices when lockers are not available.Lab clothing and equipment such as goggles washed on-site rather than by individual staff members at home. Individuals are responsible for daily cleaning of their safety goggles, Lab coat cleaning has been arranged in-house and coats are left for 72 hours before washing.Monitoring and supervision arrangements including unannounced building walk-around by the Head of School, Head of Operations and Technical Manager have been put in place to ensure people are following controls e.g. implementing the new cleaning regime, following hygiene procedures etc.COVID-19 cleaning products used have a current valid chemical risk assessment in place and are used in accordance with all prescribed risk controls and monitoring requirements. They are stored so that they are readily available to all users and are labelled according to the Globally Harmonised System of Classification and Labelling (GHS). (See location specific chemical risk assessments for cleaning products used within the area). All university staff are encouraged to avoid direct personal contact with others i.e. shaking hands etc. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Organisational  | Exposure to Existing Hazards | Staff and Students | Increased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measures | All relevant pre-existing (non COVID) risk assessments including lone working assessments and procedures have been reviewed to take into account the impacts of social distancing and other COVID counter measures.PPE related risk assessments have been reviewed to ensure that PPE is provided on an individual basis. Usage is monitored to ensure suitable level of stock of certain PPE such as face masks etc. during this time due to global shortages. Individuals maintain their own equipment in a sterile condition. Storage has been reviewed to provide individual storage arrangements. The taking of PPE home is not permitted.Emergency Procedures reviewed and revised including:* **Communication**: people have been made aware during induction that in an emergency, for example, an accident or chemical spill or fire, people do not have to stay 2m apart if it would be unsafe and that they should leave the building by the nearest exit and that this may be against the normal one-way flow of the building.
* **Fire procedures:** number and details of nominated fire warden(s) in place, fire muster point confirmed and PEEP requirements defined including who will assist with their evacuation in an emergency.
* Required modifications to fire alarm practices and evacuation drills to cater for COVID-19 measures have been addressed; ensuring that the activity is still compliant with relevant building and fire codes.
* **First Aid:** First aid needs assessment reviewed to take into account the impact of any Local or National Government requirements and any new Guidelines issued by the [University](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx) or [HSE](https://www.hse.gov.uk/), and first aid information including the location of first aid kits and first aider contact information up to date.
* **Hygiene:** Washing facilities with soap/gel available People involved in the provision of assistance to others have been informed to pay particular attention to sanitation measures immediately afterwards including washing hands.

Safety critical roles will remain in place to aid safe operation. In the event of safety critical roles not being available then a dynamic risk assessment shall be performed by School Health and Safety Coordinatorto ensure measures are introduced to mitigate risk (for example, another area within the building or campus could have a critical role such as first aider that could cover as a temporary solution).Security implications of changes made to operations and practices in response to COVID-19 Local or National Government requirements, have been considered. Swipe doors activated so only building users who had swipe card access enabled can enter. Business continuity and disaster recovery plans updated based on COVID-19 implications including contingency plan in place for possible switch back to national or local lockdown.Life-saving rules, will continue to be governed, enforced and communicated during COVID-19 especially during any Local or National Government lockdowns in particular “speaking up” if they witness any unsafe behaviours, conditions or symptoms related to COVID-19. | 4 | 2 | 8 |  |  |  |  |  |  |  |  |
| Environmental | Inbound & Outbound Goods including Post | Staff and Students | Exposure to contact with an object that has been contaminated with COVID-19. | Logistics for the deliveries to the unit so that social distancing can be maintained at all times has been considered and include: * Pick-up and drop-off collection point for deliveries now revised to Engineering South Stores
* Methods to reduce frequency of deliveries in place - ordering larger quantities less often.
* Electronic paperwork is used where possible, and procedures reviewed to enable safe exchange of paper copies where needed, for example, required transport documents.
* Strict hand washing procedure in place after handling all deliveries.
* Where possible deliveries to remain isolated and untouched for a minimum of 48 hours.
 | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Environmental | Virus transmission outside of the workplace | Staff and Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | On the outside / approach to the building there is signage to warn all prior to entering this building social distancing is in place.There is signage advising individuals to wash their hands regularly and not to touch their face.There is one door for access and one door for egress and one way systems are inforce in the building. Building access control is used in the building.Controlled access and egress is monitored to ensure it is followed. Only approved cardholders are allowed access. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Organisational | Travelling to work | Staff and Students | Exposure to respiratory droplets carrying COVID-19. | Workers encouraged to avoid public transport where applicable and use alternatives e.g. cycling, walking to work etc. Where staff are unable to avoid public transport they do so in accordance with Government and University Guidance: <https://www.gov.uk/guidance/coronavirus-covid-19-safer-travel-guidance-for-passengers><https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx> | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Organisational | Driving at work | Staff and Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Non-essential travel is not permitted during the National Lockdown period and is minimised at all other times – remote options considered first. Journeys have been scheduled and delivery/collection times to reduce contact with others.Shared vehicles e.g. fork lift trucks are frequently cleaned by the driver including between shifts or on handover. This includes cleaning of objects and surfaces that are touched regularly, such as door handles and vehicle keys, and adequate disposal arrangements are in place.Sufficient quantities of hand sanitiser /wipes are retained within vehicles to enable workers to clean hands after each delivery / drop-off.Staff are encouraged to wash hands before boarding vehicles. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Mechanical | Machinery & Equipment | Staff and Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Equipment and surfaces that are touched regularly will be frequently cleaned and disinfected. Sterilising chemicals and cloths are provided in the area to clean machines and equipment prior to the commencement of work and upon completion. If machines and equipment are shared, sterilising will be carried out between operations the equipment user. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
| Environmental | Ventilation | Staff and Students | Exposure to respiratory droplets carrying COVID-19. | Recirculation of unfiltered air within the workplace has been avoided or reduced as far as possible.All ventilation has been serviced as required. All filters have been changed as required. Ventilation systems will be maintained in line with planned and preventative maintenance schedules.General considerations reflected on during reopening of the buildings in relation to the Ventilation and fresh air to occupied spaces. Core strategy based on ‘CIBSE Covid-19 Ventilation Guidance’, REHVA guidance, other industry and HSE guidance. <https://www.hse.gov.uk/coronavirus/equipment-and-machinery/air-conditioning-and-ventilation.htm>The guidance is constantly under review by the University’s Estates as SARS-CoV2 transmission routes become more clearly defined, and any updated recommendations assessed and implemented where relevant to University systems. CIBSE Covid-19 Ventilation Guidance  <https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q3Y00000HsaFtQAJ> Ventilation systems are monitored in most cases by building management systems that will raise a fault alarm to Estates automatically. Building users are encouraged where possible to ensure windows are open. | 4 | 2 | 8 | Yes |  |  |  |  |  |  |  |
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**Risk Assessment Guidance**

Risk Scoring System

The scoring system is provided as a tool to help structure thinking about assessments and to provide a framework for identifying which are the most serious risks and why.

|  | **Consequence / Severity score (severity levels) and examples of descriptors**  |
| --- | --- |
|  | **1**  | **2**  | **3**  | **4**  | **5**  |
| **Domains**  | **Negligible**  | **Minor**  | **Moderate**  | **Major**  | **Catastrophic**  |
| **Impact on the safety of staff, students or public (physical / psychological harm)**  | Minimal injury not requiring first aid or requiring no/minimal intervention or treatment. No time off work | Minor injury or illness, first aid treatment needed or requiring minor intervention.Requiring time off work for <3 days  | Moderate injury requiring professional intervention Requiring time off work for 4-14 days RIDDOR / MHRA / agency reportable incident  | Major injury leading to long-term incapacity/ disability (loss of limb)Requiring time off work for >14 days  | Incident leading to death Multiple permanent injuries or irreversible health effects |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Likelihood score**  | **1**  | **2**  | **3**  | **4**  | **5**  |
| **Frequency** | **Rare**  | **Unlikely**  | **Possible**  | **Likely**  | **Almost certain**  |
| **Broad descriptor**  | This will probably never happen/occur | Do not expect it to happen/occur but it is possible it may do so | Might happen or occur occasionally | Will probably happen/occur but it is not a persisting issue | Will undoubtedly happen/occur, possibly frequently |
| **Time-framed descriptor** | Not expected to occurfor years | Expected to occurat least annually | Expected to occur atleast monthly | Expected to occur at least weekly | Expected to occur at least daily |
| **Probability** Will it happen or not? | <0.1 per cent | 0.1–1 per cent | 1.1–10 per cent | 11–50 per cent | >50 per cent |

The overall ***level of risk*** is then calculated by multiplying the two scores together.

**Risk Level = Consequence / Severity x Likelihood (C x L)**

|  |  |
| --- | --- |
|  | **Likelihood**  |
| **Likelihood score**  | **1**  | **2**  | **3**  | **4**  | **5**  |
|  | **Rare**  | **Unlikely**  | **Possible**  | **Likely**  | **Almost certain**  |
| **5 Catastrophic**  | 5  | 10  | 15  | 20  | 25  |
| **4 Major**  | 4  | 8  | 12  | 16  | 20  |
| **3 Moderate**  | 3  | 6  | 9  | 12  | 15  |
| **2 Minor**  | 2  | 4  | 6  | 8  | 10  |
| **1 Negligible**  | 1  | 2  | 3  | 4  | 5  |

The Initial Risk Rating is the level of risk before control measures have been applied or with current control measures in place.

The Residual Risk is the level of risk after further control measures are put in place.