UNIVERSITY OF BIRMINGHAM

# GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM

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| **Site** | **HWB-NMR** | **Department** | **College of Medical and Dental Sciences** | **Version / Ref No.** | **7**<br><br>**06.04.21**<br><br>**Incorporating updates to generic template v15 and specific items of review for this site (highlighted blue)** |
| **Activity Location** | **NMR Chambers, Research Laboratory and supporting spaces.** | **Activity Description** | **Return to Campus COVID-19: Building Risk Assessment**<br><br>**The HWB-NMR is a dedicated national facility for biomolecular NMR spectroscopy. The building contains eight NMR spectrometers located across 3 chambers, a laboratory, a meeting space and offices on the ground floor, as well as an open plan office on a mezzanine level, and has its own dedicated welfare facilities (a small kitchen, two toilets, and a shower room). The facility caters for several local and national research groups (who are based elsewhere on campus or at other UK institutions) who book time to use the spectrometers for their research.**<br><br>**On reopening of the building the 3 dedicated facility staff are expected to return to working within the building. Several users are expected to book time on the spectrometers and continue with their research.** | | |
| **Assessor** | **Sim Sihota** | **Assessment Date** | **27.07.20** | **Date of Assessment Review** | **The effectiveness of the control measures will be continually monitored from the opening of the building and a formal review of the assessment will take place monthly or when there is a significant change in circumstances. Re-issue when changes made.** |
| **Academic / Manager Name** | **Karen Willis** | **Academic / Manager Signature** | K Willis | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be harmed? Staff Students Contractors 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 |
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| Organisational | Psychological well being | Staff/Students/national users | Anxiety and stress caused by concerns around returning to work and studies on Campus | Regular communication is in place (individual and group) via telephone, e-mail or Skype/Teams/Zoom including team and group meetings and management meetings. As well as institute, College and University e-mail briefings to ensure staff and students are not ill-informed about returning to work safely.<br><br>Advice is shared with staff members and user groups, 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 using the routes described above and the University's Coronavirus FAQs click here.<br><br>Risk assessment shared and an electronic copy is available on the dedicated University web page: https://intranet.birmingham.ac.uk/staff/coronavirus/Phased-campus-reopening-building-risk-assessments.aspx<br><br>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/Principle Investigators, Institute Management Structures and intranet pages. These include:<br>• ***Social distancing: General guidance for staff and students***<br>• ***Social distancing: Buildings adaptations guidance***<br>• ***Social distancing***: ***Product solutions booklet***<br>• ***Social distancing: Building checklist***<br>• ***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<br>• ***Return to Campus COVID-19: Building Risk Assessment*** **(This completed Risk Assessment)**<br><br>Line managers are aware of how big changes to | 3 | 2 | 6 | Yes | | | | | | | | |

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| | | | | working arrangements may cause additional work-related stress and affect their employees' mental health and wellbeing and individuals have been made aware via induction, team meetings, one to one meetings, health and safety committee forums of guidance available in relation to this: https://www.hse.gov.uk/stress/<br><br>https://intranet.birmingham.ac.uk/staff/coronavirus/Coronavirus-wellbeing-support.aspx<br><br>http://www.selfhelpguides.ntw.nhs.uk/birmingham/leaflets/selfhelp/Stress.pdf | | | | | | | | | | | |
| Organisational | Psychological well being | Staff/Students/national users | Anxiety and stress caused by concerns around returning to work on Campus | Managers hold regular informal discussions using zoom or skype with their team and look at ways to reduce causes of stress.<br><br>Concerns on workload issues or support needs are escalated to line manager through meetings and e-mail and extra support via Workplace Wellbeing will be offered on a case-by-case basis.<br><br>Staff who were previously advised by Occupational Health or a medical professional (including a midwife in respect of pregnancy) ***not*** to work on campus, have had arrangements made to ensure they do not return to working on campus until such time as advised by Occupational Health.<br><br>Staff who are in the clinically extremely vulnerable group (i.e. those previously advised to shield), have had arrangements made to work from home, where possible, for the duration of the roadmap as per the Government advice. Where this is not possible, managers have discussed possible options with the individuals regarding working on campus. Prior to working on campus, staff in this category have been referred to Occupational Health for review using the specific Covid-19 Occupational Health referral form is available here.<br><br>Staff who are clinically vulnerable (any of the conditions detailed on the Government's guidance page, available here) have discussed their working arrangements and the requirement for on campus | 3 | 2 | 6 | Yes | | | | | | | |

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| | | | | presence, with their line manager to consider how they can continue to work safely including working from home. Where people cannot work from home previous returning to working on campus assessments undertaken in Autumn 2020 have been reviewed to ensure that no significant factors have changed in the intervening period. If there have been any changes then a new review has been undertaken. If there have been no significant change in factors, the previous assessment and any prior mitigating actions agreed (where they are still relevant) have been applied.<br><br>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.<br><br>Employees invited to return back to work on Campus who have concerns about either continuing to work on Campus or working from home/remotely have discussed these with their line manager or supervisor either using the University's Covid-19 Return to Campus Discussion Form or an alternative method whereby concerns have been formally recorded and where necessary an occupational health referral has been made using a standard Management Referral available via the HR Portal<br><br>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:<br><br>https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx<br><br>https://intranet.birmingham.ac.uk/hr/wellbeing/index.aspx<br><br>https://intranet.birmingham.ac.uk/hr/wellbeing/workhealth/index.aspx<br>This link is for students:<br>https://intranet.birmingham.ac.uk/student/coronaviru | | | | | **Risk assessments for new or expectant mothers will be reviewed and revised to reflect new working arrangements, as required.** | | | | | | |

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| | | | | s/Wellbeing.aspx<br><br>Within MDS an intranet page collating advice and support was launched in the first week of July and been promoted via college newsletters and Assemblies.<br>https://intranet.birmingham.ac.uk/mds/college-services/Staff-wellbeing/index.aspx | | | | | | | | | | | |
| Biological | Virus transmission in the workplace | Staff/Students/national users | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | ***Social distancing: HWB-NMR Building checklist*** has been completed to identify the control measures to consider reducing the risk of workplace infections.<br><br>Staff work using the mixed model of site and home based as agreed with line manager, in line with Government and University guidance.<br><br>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.<br><br>Managers/supervisors keep track of when staff and students can return to work/ Campus after the symptom free period.<br><br>Regular access to the Lateral Flow Device screening tests provided to staff and students who are coming onto campus.<br><br>The University's ***On-line induction materials for returning to campus*** combination of the guidance and videos have been provided and completed for all staff working in University buildings.<br><br>To help with consistency and adherence to building specific measures such as access routes, occupancy limits etc. staff from other departments (such as cleaning and Estates) and facility users (local and external) accessing the building have received a building specific induction including information and on-site induction.<br><br>Posters are displayed in entrances with reminders posted at regular intervals throughout the workplace in line with the University signage scheme reminding them of the requirement to social distance, wash hands frequently and to manage sneezing and | 3 | 2 | 6 | Yes | | | | | | | |

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| | | | | coughing in line with PHE/government guidance.<br><br>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., carrying out services out of hours if possible, if not then users of the facility will not be allowed to enter areas where servicing is taking place.<br><br>Nonessential trips between buildings and sites discouraged and reduced, e.g. users will only be on site to perform necessary sample preparation that cannot be performed elsewhere, and to load material/samples into the NMR magnets; experimental set-up will be carried out remotely where possible and only by fully trained and competent users. Options are available for fully trained and competent external users to send samples (at their cost) by courier in lieu of visiting, with staff assisting with placing samples in magnets for remote data acquisition by external users. Untrained users may request support from NMR staff (by prior agreement) for assistance with data acquisition. All analysis of data will be done off-site. Consulting activity and meetings to be held remotely via virtual platforms, use of telephones/email encouraged for communication purposes ensuring use of own dedicated phone.<br><br>A maximum of two people from the same work support 'bubble' will be given access to HWB-NMR at any one time, and only then if they are able to adhere to current government-advised social distancing measures (e.g. use of wet lab space for essential sample preparation only). | | | | | | | | | | | | |
| Environmental | Virus transmission in the workplace due to lack of social distancing | Staff/Students/national users | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or | Only work authorised and approved by the Government and University is permitted in University buildings. In the NMR building this includes access to laboratory space, magnet chambers and equipment for researchers and work will be conducted in line with the relevant government guidance. https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/labs-and-research-facilities<br><br>Workplace routines changed to ensure room/building capacity calculated to maintain at least 2m social | 3 | 2 | 6 | Yes | Revised guidance on risk assessment for lab work that cannot be completed at 2m or more to be issued.<br><br>Head of College has reminded all staff that this is an exception via email to re-inforce and advised analytical work should take place whilst Working from home. | | | | | | |

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| | | | speaking. | distancing is not exceeded including:<br>• Changes to core working hours at HWB-NMR, 9.00am -5.00pm<br>• UOB staff have been separated into teams to reduce contact between employees.<br>• Adjusted on-line booking processes in use to reduce the number of people in a lab at the same time to avoid overcrowding.<br>• Maximum room capacity signs displayed on entry points within the building, including labs.<br>• Keeping records of everyone entering the building for track and trace purposes.<br><br>To help contain clusters and outbreaks and assist the University with any requests for data by the NHS Test and Trace service a record of entry/exit of the building will be kept for a minimum of 21 days.<br><br>Procedure in place for dealing with instance of unexpected individual (e.g. staff/students not booked onto an instrument will be refused entry.)<br>During the period of national restriction visitors are not allowed, except for essential matters such as repair of critical equipment.<br><br>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: HWB-NMR Building checklist***<br>(The latest Guidance on these measures can be found by clicking the following link Social Distancing Guidelines).<br><br>There is a two-way flow system in the building and visual aids, such as floor strips, signage are used for maintaining social distancing throughout the building/workplace.<br><br>Staff activities are segregated to promote the 2m social distancing rules including:<br>• 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.<br>• Headcount capacity to ensure social distances | | | | | Access to this restricted site is tightly controlled and a NHS Test and Trace QR code is not currently displayed but is under review. | | | | | | |

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| | | | | standards have been achieved have been set and displayed on doors leading to offices, magnet chambers and laboratory.<br>• Capacity limits have been set and displayed for common facility areas (e.g. toilets, welfare areas etc.) with signage to knock before entering.<br>• Staff encouraged to remain on-site including bringing their own lunch and, when not possible, maintaining social distancing while off-site.<br>• Where available safe outside areas used for break.<br>• Tables/seating in welfare areas moved to create 2m social distancing separation and avoid large groups congregating. The kitchen to use a one out one in policy. All users are encouraged to wash their hands prior to using equipment (kettle, fridge) and to wash their hands after use. Additional signage for the correct method for handwashing displayed.<br>• The toilet facilities are originally designed as single-use. Additional signage has been placed on facilities' doors to ensure hands are washed using the correct method for handwashing prior to and after use. Building users are reminded to leave the facilities in a clean and respectable condition.<br><br>Clear method for social distancing of staff and visitors in reception areas defined and implemented including:<br>• 2m Social distancing in waiting and reception areas<br>• Electronic visitor management system in place.<br><br>Visits from people based outside of the building are managed via remote connection/working where this is an option. Where this is not an option and only if the visit is essential including for external scientists using the National NMR Facility, arrangements have been revised to ensure social distancing and hygiene at all times. These measures are monitored by HWB-NMR staff and where necessary concerns fed back to the third party manager e.g. LEV inspections and test – Estates Manager, Cleaner – Campus Services Domestic Manager.<br><br>All corridors are :<br>• Marked in areas to ensure social distancing is adhered to (lines on floor). | | | | | | | | | | | |

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| | | | | • Corridors that are over 2 m wide have a two way system of use, people using the corridor must stay to their left.<br><br>Additional signage in corridors reminding staff about social distancing.<br><br>Only one person allowed on stairwells at any one time to achieve social distancing. Building contractors/Estates and NMR staff using these stairwells have been informed during induction to announce themselves prior to use, and facility users informed via email and during induction that stairwells are out-of-bounds except in an emergency.<br><br>Additional signage in stairwells reminding staff about social distancing.<br><br>Social gatherings amongst employees have been discouraged whilst at work, including meetings, where alternative arrangements have been provided e.g. virtual meetings.<br><br>Large gatherings have been cancelled or postponed or alternative IT solutions provided. (Critical Training courses may still be performed but only following the Government and University Covid-19 guidance.)<br><br>Managers perform frequent evaluation against social distance controls. Facility users are reminded through signage and by the lab manager (or NMR staff) on site, on a daily basis of the importance of social distancing both in the workplace and outside of it.<br><br>Near-miss reporting is encouraged to identify where controls cannot be followed or people are not doing what they should.<br><br>Only 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, in relation to a particular activity, e.g. when two people are required for a magnet liquid cryogen fill, consideration has been given to whether the activity is essential. If deemed essential, all the mitigating actions possible to reduce the risk of transmission between NMR staff have been | | | | | Task specific assessments to be generated as tasks become necessary by the researcher, | | | | | | |

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| | | | | included in a task specific risk assessment and are being taken. Mitigating actions include:<br>• Further increasing the frequency of hand washing and surface cleaning.<br>• Keeping the activity time involved as short as possible.<br>• PPE re-usable visors are cleaned and sanitised regularly using appropriate cleaning products. Each member of NMR staff is assigned their own PPE where possible to minimise sharing of equipment. The taking of PPE home is not permitted.<br>• Individuals (including staff, students, visitors and contractors), unless exempt, are required to wear face coverings, inside University buildings where 2m social distancing isn't possible and cannot be maintained. 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.<br>• No working in close proximity to people and in particular a person's face, mouth and nose, for an extended period of time (the majority of the working day) is permitted unless the work is essential such as in clinical settings, like a hospital, or other close contact roles for example, Occupational Health clinical services where there is an activity specific risk assessment and PPE is provided for individuals undertaking this work.<br><br>Individuals (including staff, students, visitors and contractors), unless exempt, are required to wear face coverings, inside University buildings at all times except where there is reasonable justification for not wearing them e.g. in single occupancy rooms, in multi-occupancy staff workplaces where there is over 2m social distancing between staff and good ventilation, where it impacts on teaching and learning activities or the ability to undertake strenuous or practical activities including participating in sports. 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. | | | | | with review of the assessment by NMR staff. | | | | | | |

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| | | | | Individuals have been reminded through the induction process of how to use face coverings safely including the following:<br><br>When wearing a face covering you should:<br>• wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser before putting a face covering on<br>• avoid wearing on your neck or forehead<br>• avoid touching the part of the face covering in contact with your mouth and nose, as it could be contaminated with the virus<br>• change the face covering if it becomes damp or if you've touched it<br>• avoid taking it off and putting it back on a lot in quick succession (for example, when leaving and entering buildings)<br><br>When removing a face covering:<br>• wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser before removing<br>• only handle the straps, ties or clips<br>• do not give it to someone else to use<br>• if single-use, dispose of it carefully in a residual waste bin and do not recycle<br>• if reusable, wash it in line with manufacturer's instructions at the highest temperature appropriate for the fabric<br>• wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser once removed<br><br>Adequate training has been provided to NMR staff and facility users 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:<br>https://www.gov.uk/government/collections/coronavirus-covid-19-personal-protective-equipment-ppe<br>https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings<br>PHE quick guides for correct donning and doffing of PPE for non-Aerosol Generating Protocols. as well as | | | | | | | | | | | |

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| | | | | for Aerosol Genrating Protocols. have been utilised for examples of best practice for putting on and taking off (donning and doffing). | | | | | | | | | | | |
| Biological | Suspected case of COVID-19 | Staff/Students/national users | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Response plan in place in the event a confirmed or suspected case of COVID-19 and communicated and includes:<br>• If a person becomes unwell in the workplace with suspected COVID-19, they will be sent home in accordance to the University guidance. Managers will follow the NHS Test and Trace workplace guidance: https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance<br>• The area will be cleaned in accordance with the specific Government guidance and includes:<br>  ○ Cleaning an area with validated disinfectants after someone with suspected coronavirus (COVID-19) has left will reduce the risk of passing the infection on to other people<br>  ○ Where possible the area will be closed and secure for 72 hours, before cleaning as the amount of virus living on surfaces will have reduced significantly by 72 hours<br>  ○ Disposable gloves, masks and aprons will be worn for cleaning. These will be double bagged, then stored securely for 72 hours then thrown away in the regular rubbish after cleaning is finished<br>  ○ Once symptomatic, all surfaces that the person has come into contact with will be cleaned with validated disinfectants (including touchpoints)<br>• Provision and monitoring of adequate supplies of cleaning materials are in place.<br>• Team briefed during weekly NMR staff meeting on actions to be taken in the event of someone being suspected of having COVID-19.<br>• Staff must tell their line manager if they develop symptoms. Absence will be managed in accordance to the University guidance provided.<br>• Employees to follow the Government advice: https://www.gov.uk/coronavirus<br>• Line managers will maintain regular contact with | 3 | 2 | 6 | Yes | | | | | | | |

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| | | | | 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<br>• If an individual tests positive for COVID-19 this will be managed in accordance with the University's Test, Trace and Protect Process.<br>• 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.<br>• Individuals will be told to isolate because they:<br>o have coronavirus symptoms and are awaiting a test result<br>o have tested positive for coronavirus<br>o are a member of the same household as someone who has symptoms or has tested positive for coronavirus<br>o have been in close recent contact with someone who has tested positive and received a notification to self-isolate from NHS test and trace.<br>https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection | | | | | | | | | | | |
| Biological | Someone entering the workplace with COVID-19 | Staff/Students/national users | 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.<br><br>Services are working with the University's supply chain to ensure that they're adopting good practices to prevent the spread of COVID-19 to discuss arrangements and control measures.<br><br>Anybody visiting site will be informed that they are not | 3 | 2 | 6 | Yes | | | | | | | |

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| | | | | to enter if they're experiencing COVID-19 symptoms or should be self-isolating under the government Guidelines.<br><br>If a person becomes unwell in a University workplace with suspected COVID-19, they will be sent home in accordance to their company'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 | | | | | | | | | | | |
| Environmental | Virus transmission in the workplace | Staff/Students/national users | 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 (on induction) and are regularly reminded (posters) to 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/<br><br>Posters are displayed at the entrance, in the chambers and around the building including in welfare facilities.<br><br>Soap and water are available in toilets and laboratory, hand sanitisers are provided in the workplace and adequate supplies are maintained and are placed at the entrance/exits to the building *and in other areas* (e.g. outside plant room doors and spectrometer chambers) where they will be seen.<br><br>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.<br><br>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 at the entrance, in the chambers and around the workplace.<br><br>To help reduce the spread of coronavirus (COVID-19) individuals are reminded (on induction) of 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- | 3 | 2 | 6 | Yes | | | | | | | | |

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| | | | | do<br><br>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 via the induction document on the importance of keeping surfaces and work equipment clean.<br><br>Sharing of equipment is restricted where possible and cleaned / disinfected before and after use. A risk assessment for use of shared equipment has been produced.<br><br>Objects and surfaces that are touched regularly are cleaned frequently using cleaning wipes containing 70% IPA, such as door handles and keyboards, and making sure there are adequate disposal arrangements.<br><br>Use of hot desks and spaces avoided and, where not possible (e.g. at spectrometer PCs in magnet chambers) facility users will bring their own WiFi-enabled keyboard and mouse for use, to be removed by the user on leaving after each booking slot. Where this is not feasible (e.g. for external users based at other institutions and coming to use the National NMR Facility) a sanitised keyboard and mouse is loaned by the facility and subsequently quarantined for 72 hours after use. Work surfaces are cleaned by the user between different occupants as is any shared equipment used (including door handles and touch screens of the automated sampler changers, and NMR sample spinners and gauges) Disinfectant wipes will be provided for this purpose.<br><br>All Laboratory work benches will be left cleaned and disinfected after use by the user.<br><br>There is a clear desk policy in place to reduce the amount of personal items on spectrometer desks and work benches to be practiced when the space is in use or not in use. | | | | | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
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| | | | | 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.<br><br>Areas where people directly pass things to each other, for example samples for the magnets, have been identified and ways to remove direct contact, such as using drop-off points or transfer zones have been introduced.<br><br>Everyone is encouraged (via 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.<br><br>Staff have been encouraged to bring their own food and kitchen utensils including mugs/cups, cutlery etc.<br><br>Local and external users of the facility encouraged to use appropriately spaced clothes hooks outside magnet chambers for storing clothes and bags that cannot be brought into the magnet chambers.<br><br>An adapted procedure for the handling and storage of laboratory coats whilst in use has been established across the College in line with the requirements of the laundry service. A guidance document has been sent to all staff who will require lab coats and also reinforced in the local induction.<br><br>Lab equipment such as goggles cleaned/disinfected on-site using cleaning wipes or soap and water. It has never been College practice to take lab coats or any other PPE home for laundering/cleaning.<br><br>Monitoring and supervision arrangements, such as the keeping of records showing disinfection of shared equipment and spaces have been put in place to ensure people are following controls e.g. implementing the new cleaning regime, following hygiene procedures etc.<br><br>COVID-19 cleaning products used have a current valid | | | | | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
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| | | | | 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).<br><br>All university staff are encouraged to avoid direct personal contact with others i.e. shaking hands etc. | | | | | | | | | | | |
| Organisational | Exposure to Existing Hazards | Staff/Students/national users | Increased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measures | The nature of laboratories and the controls in place means that the Covid arrangements provide little to no increase in the existing risks.<br>Our assessment is that there is minimal impact on the controls already in place and no increased likelihood of those risks due to the Covid arrangements<br><br>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.<br><br>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.<br><br>Some non-disposable PPE; Cryogenic gloves, Chemical/cryogen/UV face shields, ear defenders (ultrasonics) and similar will be allocated to individual members of facility staff where applicable or be treated as shared equipment with clear written guidance for usage and disinfection provided.<br><br>Emergency Procedures reviewed and revised including:<br>• **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 | 3 | 1 | 3 | Yes | | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be | How might people be | Existing Control Measures | Initial Risk Rating | | | Are these adequate? | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due Date | Action Complete |
| | | | | be unsafe.<br>• **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.<br>• **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 or HSE, and first aid information including the location of first aid kits and first aider contact information up to date.<br>• **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.<br><br>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 the NMR lab manager to 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).<br>People have been made aware 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.<br><br>Security implications of changes made to operations and practices in response to COVID-19, Local or National Government requirements, have been considered.<br><br>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.<br><br>Life-saving rules will continue to be governed, enforced | | | | | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be | How might people be | Existing Control Measures | Initial Risk Rating | | | Are these adequate? | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due Date | Action Complete |
| | | | | 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. | | | | | | | | | | | |
| Environmental | Inbound & Outbound Goods including Post | Staff/Students/national users | 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:<br>• Pick-up and drop-off collection points, procedures, signage and markings revised.<br>• Unnecessary contact at delivery bay has been minimised e.g. non-contact deliveries where the nature of the product allows for use of electronic pre-booking.<br>• Methods to reduce frequency of deliveries in place - ordering larger quantities less often.<br>• Electronic paperwork is used where possible, and procedures reviewed to enable safe exchange of paper copies where needed, for example, required transport documents.<br>• Delivery and receipt confirmation made contactless and physical contact when handing goods over to the customer has been avoided.<br>• Where possible all deliveries are stripped of all packaging (which is disposed of).<br>• Strict hand washing procedure in place after handling all deliveries.<br>• Where possible deliveries to remain isolated and untouched for a minimum of 48 hours. | 3 | 2 | 6 | Yes | | | | | | | |
| Environmental | Virus transmission outside of the workplace | Staff/Students/national users | 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 everyone prior to entering this building that social distancing is in place<br><br>There is signage advising staff to wash their hands regularly and not to touch their face.<br><br>Building access control is employed at HWB-NMR; access granted only to individuals who have confirmed bookings on equipment or to use laboratory space, and who have permission to be on site at HWB-NMR (evidenced by orange lanyard).<br>Controlled access and egress is monitored to ensure it is followed. Using existing spectrometers booking system now expanded to cover other equipment and | 3 | 1 | 3 | Yes | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be | How might people be | Existing Control Measures | Initial Risk Rating | | | Are these adequate? | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due Date | Action Complete |
| | | | | laboratory space, ID card entry system and sign in/out sheet. | | | | | | | | | | | |
| Organisational | Travelling to work | Staff/Students/national users | 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:<br>https://www.gov.uk/guidance/coronavirus-covid-19-safer-travel-guidance-for-passengers<br>https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx | 3 | 1 | 3 | Yes | | | | | | | |
| Mechanical | Machinery & Equipment | Staff/Students/national users | 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, by users of the Facility and NMR staff.<br><br>Sterilising chemicals and wipes 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 by individual users, (written guidance provided - the shared equipment guidelines and risk assessment). | 3 | 2 | 6 | Yes | | | | | | | |
| Environmental | Ventilation | Staff/Students/national users | Exposure to respiratory droplets carrying COVID-19. | Recirculation of unfiltered air within the workplace has been avoided or reduced as far as possible.<br><br>Ventilation systems are maintained in line with planned and preventative maintenance schedules, including filter changes.<br><br>An assessment of the ventilation in the building, and where necessary individual areas/rooms, has been undertaken which included checks such as:<br>• Is the space naturally or mechanically ventilated<br>• All areas within the building which are usually occupied and have poor ventilation have been identified and the use of the area re-assessed (see below).<br>• An assessment of Fresh air (ventilation) has been undertaken for the workplace and where necessary individual workspaces. This included how fresh air is provided (natural, mechanical or combination of both), how many people | 3 | 2 | 6 | Yes | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be | How might people be | Existing Control Measures | Initial Risk Rating | | | Are these adequate? | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due Date | Action Complete |
| | | | | occupy/use the area, how much time people spend in the areas, how large the area is, what activities take place in the areas, the equipment and machinery in the workspaces, the use of fans and Local Exhaust Ventilation.<br><br>Natural ventilation can be improved by fully or partially opening windows, air vents and doors, not signed as fire doors. Rooms can be purged (aired) when not in use by leaving the windows and doors fully open. However, it is important to plan and close windows to minimise the risk of rodent and pigeon issues.<br><br>Mechanical ventilation has typically been set at maximum fresh air settings and operate 24/7; but as minimum of 3 hours before or after any stated occupancy times.<br><br>Staff have been informed, via this risk assessment of the following steps which they can take to make sure their workplace is adequately ventilated whilst maintaining a comfortable temperature:<br>• opening windows and doors partially can still provide acceptable ventilation while keeping the workplace comfortable. Opening higher-level windows will probably create fewer draughts.<br>• if the area is cold relax dress codes so people can wear extra layers and warmer clothing<br>• use natural ventilation alongside heating systems to maintain a reasonable temperature in the workplace.<br><br>Ventilation Instruction signs displayed throughout the building instructing individuals to "Please ensure you open all windows on arrival and close on departure."<br><br>Most mechanical ventilation systems are monitored by building management systems that will raise a fault alarm; but please ensure that any potential fault with mechanical or natural ventilation is raised with the Building Management and or the Estates Helpdesk.<br><br>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, HSE guidance, Government and other relevant industry | | | | | | | | | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
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| Hazard Category | Hazards Identified | Who might be | How might people be | Existing Control Measures | Initial Risk Rating | | | Are these adequate? | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due Date | Action Complete |
| | | | | guidance. 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.<br><br>Links used above:<br>https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q3Y00000HsaFtQAJ<br>https://www.rehva.eu/fileadmin/user_upload/REHVA_COVID-19_guidance_document_V4_09122020.pdf<br>https://www.hse.gov.uk/coronavirus/equipment-and-machinery/air-conditioning-and-ventilation.htm<br>https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19#shops-running-a-pick-up-or-delivery-service<br><br>HWB-NMR is equipped with automated roof vents, providing frequent fresh air ventilation to the main atrium. | | | | | | | | | | | |
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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.<br><br>No time off work | Minor injury or illness, first aid treatment needed or requiring minor intervention.<br><br>Requiring time off work for <3 days | Moderate injury requiring professional intervention<br><br>Requiring time off work for 4-14 days<br><br>RIDDOR / MHRA / agency reportable incident | Major injury leading to long-term incapacity/ disability (loss of limb)<br><br>Requiring time off work for >14 days | Incident leading to death<br><br>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 occur<br><br>for years | Expected to occur<br><br>at least annually | Expected to occur at<br><br>least monthly | Expected to occur at least weekly | Expected to occur at least daily |
| **Probability**<br><br>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.