This training material contains the behavioural requirements for these Physical Containment Level 2 (PC2) facilities:

- Animal Facility
- Aquatic Facility
- Constant Temperature Room
- Invertebrate Facility
- Laboratory

The requirements apply to all PC2 facility types, unless otherwise indicated.

*Note: the requirements for large grazing animal facilities and specific OGTR licences are not covered in this document. Where additional conditions apply you will be notified of any further induction requirements by the facility manager(s).*

All persons working in PC2 containment facilities must comply with the behavioural requirements, even where they are not handling GMOs or microorganisms.

**Read the information below, then complete page 14 of this form and submit it to the Facility Manager(s) and the IBC.**

## Contents



# Terminology

In this training the following terms have meanings as defined below.

**Facility** means: **any PC2 certified room used for work involving GMOs or experimental microorganisms, including but not limited to laboratories**, equipment rooms, animal holding or procedure rooms, invertebrate holding rooms, a room used for housing or holding aquatic organisms, walk-in fridges or freezers.

**GMO** means:

- Any genetically modified (GM) animal, plant, invertebrate, aquatic organism, microorganism, cell or viral vector.
- Any non-GM animal, plant, invertebrate, aquatic organism, cell, or microorganism that contains genetically modified microorganisms or genetically modified material.
- All reproductive stages and propagative material derived from a GMO: gametes, fertilised eggs, embryos, larvae.

**IBC –** Institutional Biosafety Committee

**Microorganism** means: protozoa, fungi, archaea, bacteria, unicellular algae, virus, viroid, parasite, or prion. Where used in this document, microorganism refers to risk group 2 or genetically modified microorganisms, or samples known or likely to contain these.

**OGTR –** Office of the Gene Technology Regulator

**PC2-work** means: any work that requires containment in a PC2 facility, including but not limited to work with GMOs classified as PC2 Notifiable Low Risk Dealings (NLRDs), work with risk group 2 microorganisms or samples containing these, and any work with GMOs licenced by the OGTR where the licence conditions specify that PC2 containment is required.

**Risk group** means: the classification of microorganisms into groups based on the pathogenicity of the agent, the mode of transmission and ease of spread, host range, availability of effective preventative or treatment measures, and the endemic or exotic nature of the agent. Risk groups are defined in *Australian/New Zealand Standard 2243.3* (*AS/NZS 2243.3*) for microorganisms affecting human, animal, invertebrate and aquatic organisms.

| Risk Group | Description | Example(s) | Containment level required |
|---|---|---|---|
| 1 | A microorganism that is unlikely to cause human, animal, plant, or aquatic organism disease, which presents a low risk to a community, industry or region and is already present and widely distributed in Australia. | *Lactobacillus* spp. | PC1 containment compliant with AS/NZS 2243.3 unless a higher containment level is indicated |
| 2 | A microorganism that poses moderate risk to individuals in the laboratory or to animals or aquatic organisms. These may cause infection, but effective treatment and preventative options are usually available. They may pose a higher degree of risk to immune compromised or pregnant personnel.<br>For plant pathogens, includes microorganisms that pose a moderate risk to plants, industry, or agriculture, which are present but not widely distributed, or that are exotic with limited ability to spread without a vector. | *Klebsiella* spp., *Pseudomonas* spp., *Shigella* spp., *Toxoplasma gondii, Candida albicans,* Adenovirus, Dengue virus, Citrus canker, Abalone herpesvirus | PC2 containment compliant with AS/NZS 2234.3 unless a higher containment level is indicated based on risk assessment. |
| 3 | A microorganism that usually causes serious disease in humans, animals, plants, or aquatic organisms. For human, animal, and aquatic diseases, can present a moderate risk of spread in the community or environment, but there are usually effective preventative or treatment measures available. For plant pathogens, includes microorganisms that pose a substantial risk to industry or agriculture, is exotic and readily spread naturally without the assistance of a vector. | *Bacillus anthracis*, *Brucella* spp., Chikungunya, Tick-borne viruses, Grapevine rust, Salmonid alphavirus | PC3 containment compliant with AS/NZS 2234.3 unless a higher containment level is indicated based on risk assessment.<br>***Note: the University does not currently have any facilities suitable for work with risk group 3 microorganisms*** |
| 4 | A microorganism that usually produces life-threatening human or animal disease, is a significant risk to laboratory workers and may be readily transmissible from one individual to another. Effective treatment and preventative measures are usually not available. | Ebola virus, Hendra virus | PC4 containment compliant with AS/NZS 2234.3.<br>***Note: the University does not currently have any facilities suitable for work with risk group 4 microorganisms*** |

# PC2 Conditions

| | 1. Entering a PC2 Facility |
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| ☐ | 1.1 Only authorised staff and students are allowed to enter PC2 facilities. |
| ☐ | 1.2 You may only enter and work in a PC2 facility after completing a PC2 Record of Training, completing all local inductions and training requirements and completing any other training required by the OGTR or the IBC. |
| ☐ | 1.3 "Emergency Only" exits must not be used to enter or exit the facility, except in an emergency. |
| ☐ | 1.4 If the facility has an anteroom (animal and invertebrate facilities), entry to and exit from the facility must be through the anteroom. Make sure that each anteroom door is closed behind you before opening the next door. |
| ☐ | 1.5 Do not enter the facility unless you are wearing enclosed shoes (footwear that covers the toes, upper foot, and heels).<br>  <br>Acceptable footwear examples<br>  <br>Unacceptable footwear examples |
| ☐ | 1.6 Following entry, you must close the facility door behind you. Doors of the facility must be kept closed when people are working in the room, and when GMOs or microorganisms are present in the room. Do not prop doors open, this includes self-closing doors. |
| ☐ | 1.7 Immediately following entry, you must put on all required Personal Protective Equipment (PPE).<br>• For **ALL** facilities this will include wearing a long-sleeved laboratory gown or coat as supplied in the facility.<br>*Note:*<br>○ *if you are moving directly via a lab corridor to an internal office you do not need to put on a gown. Do not enter lab areas without putting on a gown.*<br>○ *you are permitted to move directly via a lab corridor to an internal containment facility to put on PPE that is held within the internal facility.*<br>• Gloves must be worn when working in a PC2 LABORATORY or a PC2 ANIMAL FACILITY and whenever you are working in a biosafety cabinet.<br>○ Special conditions may apply within Adelaide Microscopy facilities – follow local procedures in these facilities.<br>• If you are working in a biosafety cabinet, you must wear gloves.<br>• For laboratory rodent animal facilities, wear PPE as directed by facility staff - extra PPE including hair nets and face masks are required.<br>• Wear any other PPE needed as indicated in risk assessments and local safe operating procedures (SOPs). |
| ☐ | 1.8 Maintenance personnel, contractors and visitors to the facility must be notified of any biological hazards in the laboratory and are to be provided with PPE if entering PC2 work areas. |
| | **2. Non-PC2 Work in a PC2 Facility** |
| ☐ | 2.1 Every person entering and working within a PC2 facility must follow PC2 requirements as described herein, unless otherwise described in this document. |

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| ☐ | 2.2 Non-PC2 materials and organisms handled in a PC2 facility require ongoing PC2 containment unless:<br>• local procedures are implemented to ensure that non-PC2 work is not cross-contaminated with PC2-work in the facility;<br>• the above procedures are **documented** for the work area; and<br>• the primary and any secondary container used to transport any materials or organisms out of the facility must be free of contamination before transport occurs.<br>*Note: some examples of procedures to prevent cross-contamination include separation of work areas, decontamination of work areas and biosafety cabinets between PC2 and non-PC2 use and changing gloves between handling PC2 and non-PC2 materials.* |
| **3. Behavioural Requirements & Work Practices** | |
| ☐ | 3.1 Eating, drinking, chewing gum, and preparing or storing food or drinks for human consumption is not permitted in PC2 facilities. |
| ☐ | 3.2 Smoking, vaping, applying cosmetics (including lip gloss or sunscreen), and handling contact lenses is not allowed within PC2 facilities. |
| ☐ | 3.3 Do not work with or store any organism or biological sample in an anteroom of a PC2 facility. Only double-contained transport through the anteroom is allowed. |
| ☐ | 3.4 Windows must always be kept closed and secured. |
| ☐ | 3.5 Mouth pipetting is prohibited. |
| ☐ | 3.6 Mobile phones must be sealed within a zip lock bag if *handled or used* in any PC2 facility<br>• If you need to take a phone call, you can use speakerphone through the zip lock bag. Otherwise, you are required to remove gloves, wash, or sanitise hands and leave the PC2 area before touching your device.<br>• Making emergency phone calls (i.e., to resolve a lab safety incident) is permitted without restriction.<br>• The zip lock bag must be removed before exiting the facility. To re-use zip lock bags, decontaminate by spraying the outside of the bag with disinfectant before removing the phone. Store the bag in the facility for future use.<br>*Note:*<br>• *normal phone activities such as taking photographs, typing, and using Okta verify work through a zip lock bag.*<br>• *these conditions are for personal mobile phones brought into and out of the facility. If there is a dedicated phone, iPad, etc. that stays exclusively within the facility then it can be used without restriction, but should be routinely cleaned with disinfectant to prevent cross-contamination.* |
| ☐ | 3.7 Personal devices such as headphones and earbuds must not be worn in PC2 facilities. |
| ☐ | 3.8 Laboratory benches, trolleys and equipment areas are not permitted to be used as desks or long-term write up areas. Office work must be done in areas outside of the PC2 facility or in dedicated, designated office areas in PC2 labs.<br><br>Where a designated office area is inside of a PC2 laboratory, personnel are not permitted to bring food or drinks. Personal belongings can be stored in the office area but must be off of the floor. |
| ☐ | 3.9 Handbasins in PC2 facilities are for hand washing ONLY. Do not use handbasins as laboratory sinks. When exiting a facility, use only a handbasin or hand sanitiser to decontaminate hands (i.e., do not wash hands at a lab sink upon exit). |
| ☐ | 3.10 Do not store documents and papers on the laboratory bench, other than any worksheets you are using at the time. Lab books should be wrapped in a plastic cover. Reference documents used in the facility should be stored on a shelf when not in use. |

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| ☐ | 3.11 Pest insects, birds, and rodents must be kept out of the facility. Follow all local procedures for pest control. Specific requirements including walking over sticky mats or using fly papers may apply in some animal or invertebrate facilities. |
| ☐ | 3.12 Disposable gloves that are damaged or contaminated must be removed, disposed, and replaced with clean gloves before continuing work. Gloves that you have been wearing in a biosafety cabinet must be removed, disposed, and replaced before moving to work in another area of the facility. |
| ☐ | 3.13 Disposable gloves are single-use items. Do not keep them to wear again. Dispose in biohazard bins provided in the area. |
| ☐ | 3.14 Safety glasses should be worn when working at a biosafety cabinet, and must be worn when working with animals infected with experimental microorganisms, or where indicated in a risk assessment or standard operating procedure. |
| ☐ | 3.15 GMOs which require containment in a PC2 facility, risk group 2 microorganisms, or any other organism that has potentially become cross-contaminated, must not be removed from the facility unless:<br>• they are being transported to another containment facility certified by the OGTR to at least PC2, to an approved location for storage or to another location to be decontaminated or disposed by an approved method;<br>• written permission has been given by the IBC or OGTR for transport to another destination within Australia; or<br>• subject to obtaining any required permits, they are to be transported to the Australian border for export. |
| ☐ | 3.16 Do not touch other people's research materials in a PC2 facility. Only authorised personnel are permitted to handle GMOs held under an IBC or OGTR approval. |
| **4. Decontamination and Waste Disposal** | |
| ☐ | 4.1 Work areas and biosafety cabinets must be decontaminated with a suitable disinfectant at the end of each work session. |
| ☐ | 4.2 Items that are often handled (e.g., door handles, soap dispensers, lab-phones) should be wiped with disinfectant regularly to prevent cross-contamination. |
| ☐ | 4.3 All work areas, surfaces and equipment must be decontaminated before any maintenance or servicing that occurs in the facility. Equipment and furniture must be decontaminated before removal from the facility. |
| ☐ | 4.4 All decontamination procedures conducted inside the facility must be carried out by authorized and appropriately trained personnel.<br>*Note: this means, for example, that only people trained in the use of an autoclave are allowed to use that autoclave to decontaminate waste.* |
| ☐ | 4.5 Reusable labware that has been used in contact with biological materials must be decontaminated with a suitable chemical disinfectant or by autoclaving prior to washing and reuse. |
| ☐ | 4.6 When using chemical disinfectants for decontamination, the type of disinfectant used will depend on the types of samples or organisms being used. Care must be taken to ensure that the disinfectant selected is effective against any microorganisms that may be present.<br>*Some typical disinfectants and their use are described in the IBC's Decontamination using disinfectants Guidelines, available on the Gene Technology Resources website: https://www.adelaide.edu.au/staff/research/ethics-compliance-integrity/gene-technology/gene-technology-resources#general-guidelines-policies .* |
| ☐ | 4.7 In the case of large, easily visible GMOs such as mice, drosophila or zebrafish, visual inspection can be used to assess whether decontamination of sample or transport containers is required. |

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| | This method is not allowed where the GMO contains experimental microorganisms. Decontamination of the containers is needed where this applies. |
| ☐ | 4.8 Lab gowns or coats that have become contaminated with biological goods (e.g., during a spill, or after being worn at a biosafety cabinet) must be decontaminated by autoclaving before being sent to the laundry service.<br>• Where an autoclave is not available soaking in bleach or F10 disinfectant prior to laundering is an acceptable alternative. |
| ☐ | 4.9 All contaminated or potentially contaminated waste, tissue and carcasses, enrichment material and bedding, cultures, etc. must be decontaminated before or during disposal.<br>Approved decontamination procedures in your local area will include one or more of the following options:<br>- Chemical disinfection – e.g., for small volumes of liquid waste<br>- Autoclaving<br>- Disposal to clinical waste bins for offsite incineration<br>- Waste disposal methods as described in DIR or DNIR licences.<br>- Other local procedures as approved in writing by the OGTR or IBC |
| ☐ | 4.10 Waste must be segregated and placed in the right bins or containers for disposal. GMO or microbiological waste must be placed into a clinical or biohazard waste bin.<br>Local collection bins must be labelled with a biohazard symbol and the acronym GMO. Also they must be lined with a biohazard bin liner (bag with a biohazard symbol).<br>Bags from local collection bins must be sealed/tied off and placed into a yellow clinical waste wheelie bin. Once full, the bin must be sealed closed using the GMO red zip-tie. |
| ☐ | 4.11 Bins must be emptied before they are overflowing. Any overflow of bins must be treated and decontaminated following methods for microbiological spill clean-up. |
| ☐ | 4.12 Where waste is sent for recycling, the following rules apply:<br>1. Any cardboard boxes or packaging for recycling must be removed before items are taken into the facility. Cardboard or absorbent packaging materials that have been handled in a PC2 facility must not be recycled and must be placed into the clinical waste bins.<br>2. For anything else, you must contact the IBC to discuss recycling arrangements and have the process for decontamination approved beforehand.<br>*Note: these conditions do not apply to items that are decontaminated for re-use in PC facilities – e.g., you can reuse tip boxes to contain small items for autoclaving.* |
| **5. Transport** | |
| ☐ | 5.1 Live PC2 organisms, viable samples, GMOs, animal or human tissues, cells, microorganisms, etc. transported outside of the PC2 facility must be double contained by sealing inside of a container (primary) placed inside of another container (secondary). |
| ☐ | 5.2 The primary container must be *sealed* closed (e.g., screw-top tube or clip-locked IVC cage) and placed within a sealed, unbreakable secondary container (e.g., plastic clip-lock box or enclosed trolley).<br>*Note: do not use flip-top tubes as a primary container as these can pop open if dropped and therefore are not considered 'sealed'. Where you need to use such tubes, they can be placed in a sealed box inside of a secondary container to achieve double-containment.* |
| ☐ | 5.3 When transporting GMOs, the outside of the outer container must be clearly labelled with the acronym 'GMO'.<br>*Note: labelling enables the separation of GM work from non-GM work and alerts handlers to the requirement for containment.* |

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| ☐ | 5.4 When transporting microorganisms or samples containing experimental microorganisms (including GMO microorganisms), the outside of the outer container must be clearly labelled with a biohazard symbol. |
| ☐ | 5.5 The outside of the outer container must be clearly labelled with the responsible researcher's name and mobile phone number throughout transport. |
| ☐ | 5.6 The outside of the transport container must be wiped with disinfectant prior to exiting the facility. Ensure that you select transport containers with a non-permeable surface so that disinfection is possible.<br>*Note: foam eskies and cardboard boxes do not allow for appropriate decontamination and cannot be used as the outermost container for transport out of a PC2 facility.* |
| ☐ | 5.7 When transporting GMOs out of the lab, ensure that you count and record the number of samples/GMOs before transport occurs, and when you arrive at your destination (including before placing goods into storage). |
| ☐ | 5.8 If sending GMOs to others, ensure that you count and record the number of samples sent and have the recipient confirm the number received back to you.<br>*Note: remember you are legally responsible for GMOs under your approval until they are received by a recipient who has their own approval, or until the GMOs leave Australian territory in the custody of an experienced courier.* |
| 6. Storage | |
| ☐ | 6.1 All containers of GMOs must be clearly labelled with the acronym 'GMO'. All containers of microorganisms must be labelled with a biohazard symbol. All storage containers must have the responsible researcher's name, and mobile phone number.<br>For small tubes, the labels may be applied to a secondary box or vessel where the tubes are stored.<br>*Note: labelling enables the separation of GM work from non-GM work and enhances the control of GMOs within the facility.* |
| ☐ | 6.2 GMOs and microorganisms in a containment facility must not be stored on the bench. They should be transferred to a dedicated storage area, such as an incubator, refrigerator, or dedicated area in a cold room. |
| ☐ | 6.3 All cultures and organisms being stored inside the facility must be sealed during storage to prevent dissemination of GMOs and/or microorganisms and to prevent cross-contamination.<br>*Note: the type of container necessary to prevent escape or dissemination will vary depending on the type of organisms or samples being stored.* |
| | 6.4 GMOs or microorganisms must be stored under double-containment conditions outside of a PC2 facility. The samples must be stored inside of a sealed primary container that is placed within a secondary sealed container.<br>The secondary container may, for the purposes of storage, be a fridge, freezer, cupboard or cryotank that is labelled to identify storage of GMOs or biohazards and includes the name and contact details of the responsible researcher.<br>*Note: where samples in small tubes or containers are stored in fridges, freezers, or cupboards, these must be in an enclosed box to prevent loss of GMOs/microorganisms in small containers.* |
| ☐ | 6.7 Storage of any PC1 or PC2 GMOs outside of a certified facility must be approved by the IBC and must be in a secure location (e.g., locked freezer or locked cryogenics room). |
| ☐ | 6.8 If the facility is a Constant Temperature Room, any GMOs must remain in a sealed primary container while in the facility, except for:<br>• GM animal tissue cultures which do not contain microorganisms. |

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| ☐ | 6.9 It is necessary to have an accounting system documenting the number of GMOs (or containers of GMOs for small samples) that are held in a PC2 facility or in storage. This documentation must be made available to the OGTR or IBC if requested. The following conditions apply:<br>• detailed storage records must be maintained for all GMOs and microorganisms held in storage. These records must include detailed storage location (e.g., box and shelf number) and identify the goods as GMOs and list the corresponding IBC dealing ID where applicable.<br>• for GMOs stored at -80, they must be labelled as GMO and list the corresponding IBC dealing number within the freezer management system (FreezerPro or OpenSpecimen).<br>• for whole animals, follow established local accounting procedures.<br>• for cell and microbiological cultures, etc., production or disposal of these should be noted in your lab book. |
| **7. Spills, loss, theft or escape from containment** | |
| ☐ | 7.1 All staff and students who work with PC2 materials must be familiar with spill clean-up and incident procedures and be aware of the location of spill kits in their work area.<br>Procedures prepared by the IBC for the following types of spills and incidents should be followed:<br>- infectious and GMO microbiological spills.<br>- spills of GM animal materials including sperm, ova and embryos.<br>- spills of material derived from GM aquatic organisms (including water spills which may contain GM eggs, larvae or fry).<br>- unintentional release of GM invertebrates.<br>Copies of the procedures are available on the Gene Technology incident website: https://www.adelaide.edu.au/staff/research/ethics-compliance-integrity/gene-technology/gmo-dealings#incidents |
| ☐ | 7.2 If a GM animal, invertebrate or aquatic organism, or any of these containing GMOs or microorganisms, escapes within the facility, it must be captured and returned to its container or cage or euthanized. |
| ☐ | 7.3 In the event of the escape, unintentional release, spill, leak, or loss of GMOs or microorganisms outside of a containment facility:<br>• you must make efforts as soon as safe and possible to do so to locate and return these to containment or to euthanise them or render them non-viable; and<br>• the incident must be reported to the IBC as soon as practical (see 7.4 below and the Incidents website for more information).<br>• the IBC will, where needed, make a notification to relevant regulators. Where applicable, you will have to provide all information requested by the IBC or regulator to assist with any incident investigation that may be needed. |
| ☐ | 7.4 Any spill, accident, unintentional release, loss, or theft involving GMOs or microorganisms must be reported to the IBC as soon as possible.<br>Email: ibc@adelaide.edu.au<br>Phone:<br>- Amanda Highet (Senior Research Compliance Officer) - (08) 83136105; or<br>- Jess Hall (Research Compliance Officer) - 08 83133059. |
| **8. Exiting a PC2 Facility** | |
| ☐ | 8.1 Before exiting a PC2 facility you must remove your laboratory gown unless you are moving to an immediately connected containment facility at the same level of containment (e.g., OGTR PC2 to OGTR PC2). Any exceptions to this requirement must be approved in writing by the IBC. |
| ☐ | 8.2 Other than where condition 8.1 applies, all PPE must be removed before exiting a PC2 facility. |

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| | 1. Remove gloves, dispose in biohazard bin.<br>2. If you are wearing a face mask, safety glasses or hair net, wash or sanitise your hands before removing these. Dispose face mask and hairnet in biohazard bin.<br>3. Remove gown and store on hook or in pigeonhole supplied OR place disposable gowns in the biohazard bin.<br>4. Wash/sanitise hands before exiting. |
| ☐ | 8.3 Hands must be washed with soap/soap-free alternative handwash and water at a handsfree handbasin, or use sanitiser from a handsfree dispenser provided in the facility before you exit. |
| ☐ | 8.4 Gowns must be stored within the PC2 facility between uses. Hang your gowns on a hook, or place your gown in a designated pigeonhole for storage. Keep used gowns separate from clean PPE.<br>• Where gowns are hung on hooks, you should avoid hanging gowns on top of one another. |
| ☐ | 8.5 Gowns must not be taken to another facility unless condition 8.1 above applies. Gowns must not be taken home for laundering – University-contracted laundry services must be used. |
| ☐ | 8.6 Gloves must be disposed after use and before exiting the facility. |
| ☐ | 8.7 Make sure that the door of the facility is closed behind you as you leave. If you are the last person leaving, make sure that the door is locked or secured. |

# Special conditions for specific organisms and samples

| 9. Additional conditions for handling of animals (including aquatic organisms) | |
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| ☐ | a. Live PC2 laboratory animals may only be housed within a PC2 *animal facility*.<br>b.<br>Laboratory animals cannot be left unattended within a PC2 *laboratory* and may only be handled in a *PC2 laboratory* for the length of time required to undertake laboratory procedures on the animal. |
| ☐ | c. All means of access to an animal facility where PC2 laboratory animals are held must be locked when animals are not under direct supervision. |
| ☐ | d. Animals must be housed/held in containers, pens, cages, or tanks designed to prevent escape and sufficient to provide all animal welfare needs. The facility alone is not sufficient to provide containment. |
| ☐ | e. All handling of, and experimental procedures with animals must be carried out in a way that minimises the chance of escape of the animals and exposure of people to the animals.<br>• Staff and students must be familiar with safe handling procedures for the animal species involved, including appropriate restraint procedures, and (where applicable) inoculation procedures to minimise risk of bites, scratches, self-inoculation, or animal escape.<br>• Animals must be restrained, anaesthetised, or in a containment device (e.g., cage or tank) during handling.<br>o Where behavioural studies outside of containment devices are undertaken, these must be detailed in your IBC application and specifically approved as part of your dealing approval. |
| ☐ | f. Animals that are GM or contain GM material or GM microorganisms must be identified as GMOs – for example by adding 'GMO' labels/cage cards to cages and containers. Large animals must be clearly marked so they can be readily identified (e.g., tattoo, permanent tag, microchip, or permanent brand).<br><br>Anything that cannot be identified as non-GMO must be treated as a GMO and handled in accordance with these requirements. |

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| ☐ | g. Eye protection (e.g., safety glasses) must be worn when working with animals containing experimental microorganisms. |
| | h. During post-mortem examinations, spillage trays and containers for segregation of used instruments must be used. |
| ☐ | i. Live terrestrial animals that have been intentionally infected or are known or suspected to contain an infectious substance are not allowed to be transported off-campus on public roads or by courier, rail, sea, or air unless approvals are granted by government departments (contact the IBC for advice where this is required).<br>Such terrestrial animals may be moved between PC2 facilities at a single campus following double containment conditions but must not be moved via public roads. |

## 10. Additional conditions for handling of risk group 2 microorganisms (including GM versions), viral vectors and samples containing either of these

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| ☐ | j. Do not sniff bacterial cultures to detect odours. |
| ☐ | k. A biosafety cabinet (or other equipment specifically approved in writing by the OGTR and that is designed to contain aerosols) must be used where there is a risk of aerosol production, and whenever handling any microorganism that is infectious via the respiratory route.<br>*Note: procedures such as centrifuging and vortex mixing in sealed tubes do not need to be performed in a biological safety cabinet, provided that the tubes are only opened in a biological safety cabinet.* |
| | l. Do not use a laminar flow hood or fume cupboard as a substitute for a biosafety cabinet. These do not provide protection from biological aerosols and may increase risk.<br><br>Where hazardous chemicals are used in association with biological hazards, a risk assessment must be undertaken to determine whether a fume cupboard, biosafety cabinet or cytotoxic drug safety cabinet is required. |
| ☐ | m. You must not use a malfunctioning biosafety cabinet or a cabinet that does not have a current NATA test certificate affixed to the cabinet.<br><br>Do not use the cabinet if the following apply:<br>• it was moved and has not been inspected and tested since it was relocated.<br>• it has undergone electrical or mechanical maintenance, or had HEPA filters replaced, and it has not been tested since the maintenance or filter replacement occurred.<br>• the affixed sticker shows that that the BSC failed the air barrier containment or exhaust HEPA filter integrity (Class II BSC) tests.<br>• the BSC appears to be malfunctioning in any way – e.g., consistent alarming, no sound of air circulation when cabinet is running. |
| ☐ | n. When centrifuging risk group 2 microbiological samples or viral vectors, a centrifuge fitted with an aerosol tight lid, bucket or rotor must be used. This applies even where sealed tubes are spun.<br><br>For example:<br>     |

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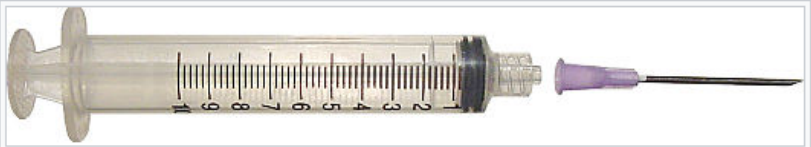
| | | After spinning, the centrifuge container should be left for 5 minutes to allow droplets to settle, before it is opened in a biosafety cabinet. |
| ☐ | o. | Leaking containers, including animal or human clinical or diagnostic samples, must be handled in a biosafety cabinet. Decontaminate the exterior surface of the container before opening. |
| ☐ | p. | Sharp instruments such as syringes, needles and scalpels should not be used unless there is no alternative available. A documented risk assessment must be performed where sharps are used with samples known to contain microorganisms or viral vectors. |
| ☐ | q. | Glass equipment and glassware has the potential to become a sharp instrument during an accident. Where possible, substitute plastic for glassware. |
| ☐ | r. | Where microbiological material is being injected under pressure, Luer-lock fittings (or equivalent) must be used.<br>  <br>A syringe with a male Luer-Lock fitting, and a needle with female Luer-Lock fitting (purple) which screws into it |

**If you believe that you have a legitimate reason requiring an exception to any of these standard PC2 requirements, discuss with the facility manager in the first instance, then you must contact the IBC.**

- **Exceptions will be considered based on legislative requirements and risk, and are at the discretion of the IBC, OGTR and/or SafeWork SA.**
- **You will need to demonstrate how containment will be achieved or maintained using alternative controls.**
- **In most cases, the IBC will be required to seek formal exemptions from external regulators.**

# Your details

This section must be completed by the person undertaking the training.

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| **First name:** | | **UofA ID:** | |
| **Last name:** | | **School:** | |
| **Your role:** | | ☐ Research staff<br>☐ Facility staff<br>☐ Postgraduate student<br>☐ Hons or Undergraduate student<br>☐ External visitor<br>☐ Other: | |
| **Are you working with GMOs in the PC2 facility?** | | ☐ Yes: ☐ No<br>GMO dealing ID: | |
| **Are you working with risk group 2 (or higher) microorganisms in the PC2 facility?** | | ☐ Yes: ☐ No | |
| **Declaration:**<br>**By signing this form, I acknowledge that I have read and understood the behavioural requirements above as is required in accordance with the Gene Technology Act 2000. I understand and agree to comply with my obligations in relation to these guidelines.** | | | |
| **Signature:**<br>Entering initials is acceptable if submitting this document electronically | | | |
| **Date:** | | | |

# How to submit this Record of Training

Provide a copy of this Record of Training to the Facility Manager for each PC2 facility you will be working in, and also submit a copy to the IBC using this link