UQBR SOP 24 Rodent Cage Change – PC2 Containment Areas
AEC Reviewed: 2015

REQUIREMENT:

1. To ensure that the requirements and regulations as set out by the following are met as far as practicable:
    - AEU UQ
    - The Code
    - OGTR
    - Department of Agriculture and Fisheries (DAF)
    - QLD Workplace Health and Safety, and
    - UQ OH&S

2. To standardise practice for all UQBR staff and researchers within UQBR facilities.

3. Annual review is required to maintain best practice and usability of this SOP.

RESPONSIBILITY:

It is the responsibility of the individual performing animal handling procedures and techniques to ensure they have been assessed as competent.

Please Note:
This UQ Biological Resources (UQBR) SOP expands upon UQ Animal Ethics Unit SOPs. This document outlines the procedures followed by UQBR and should not be referenced in Animal Ethics Applications.

No changes or deviations from this SOP are to occur unless the Director of UQBR gives prior authorisation.

NB: The use of (*) indicates this statement is dependent on the facility procedures
NB: The use of (**) indicates this statement is dependent on AEC Approvals

OBJECTIVE:

To describe the cage change procedure within PC2 containment areas for mice and rats that is to be used within the UQBR facilities.

I. EQUIPMENT

Cage Change Items

- Bio-safety cabinet or Cytotoxic cabinet
- Clean and prepared cage bases, lids, feed hoppers (*)
- Feed (*)
- Replacement water bottles (*)

Consumables

- PPE (*)
- Disinfectant (*)
- Paper towel
- Clinical waste bin or cytotoxic bin
- Extra Gloves – appropriate to task

Administration

- Permanent Marker
- Pen
- Room diary (*)
- Room Log (*)
- Notification items e.g. health check cards or pregnancy stickers
- Stickers – e.g. pregnancy and litter (*)
- Litter chart (*)
- Movement Sheet (*)
- Genotrack

II. PREPARATION OF EQUIPMENT

1. Ensure an adequate number of cage change items are placed within the room ready for use
2. Ensure consumable levels are adequate and stocked ready for use
3. Ensure administration items are positioned for easy use during cage change
4. Turn on bio-safety or cytotoxic cabinet – refer to local facility SOP (*)
5. Setup equipment in a clean-to-dirty workflow

III. PROCEDURE

Cage Changing Procedure

1. Disinfect gloved hands. Refer to UQBR SOP 44 Disinfection within UQBR Facilities
2. Place clean cage on the work surface
3. Place a freshly filled water bottle in the cage (*)
4. Place cage to be changed within the work area
5. Remove lid from cage
6. Confirm the number of and sex of animals in the cage
7. Transfer hopper to clean cage and fill. Replace hopper if required here (*)
8. Move each animal to the new cage while checking:
    - Numbers – if incorrect investigate and alert supervisor
    - Sex – if incorrect investigate and alert supervisor
    - Health – if concerned place health check card on cage and follow UQBR Veterinary Care Protocol
    - Dirty bedding or nesting may be moved to the clean cage to help alleviate stressors(*)(**)
9. Place lid on the new cage. Replace lid if required here
10. Disinfect gloved hands
11. Move cage card to the new cage
12. Move dirty cage to ‘dirty’ cage stack ensuring the lid is on the cage
13. Place clean cage onto rack
14. Complete cage specific record keeping requirements
15. Proceed to next cage to be changed

Post cage changing Procedure

1. Clean the Bio-safety or cytotoxic cabinet – see local facility SOP (*)
2. Place lid on food and nesting storage containers (*)
3. Move loaded dirty trolley to designated space ready for knockout. Refer to UQBR SOP 43 Knockout and Waste Disposal of Cages within Containment Areas
4. Complete room log/diary

IV. CONSIDERATIONS

Research Considerations

The type and complexity of cage contents affects both the welfare and development of laboratory animals. Variations to the UQBR standard may have major welfare and research ramifications.

Variations cannot take place without an understanding of these ramifications and require the specific approval of the Animal Facility Manager and researcher. Variations must be in line with recommendations of *The Code* (2013) and the Code of Practice for the Housing and Care of Laboratory Mice, Rats, Guinea Pigs and Rabbits (DPI, Vic 2004).

The principal is to ensure containment and to prevent contamination within and between projects.

Procedures within containment suites may vary dependent on the nature of the studies. Restrictions may apply pending IBC direction.

Procedure Considerations

- Cage change equipment items must not be placed on the floor.
- Work from the clean side to the dirty side within the cage change area.
- Only one cage should be opened at one time
- At cage change a health assessment of each rodent is performed.
- Gloved hands must be sprayed between each cage.
- Gloves must be changed when changing cages from different colonies or treatment groups
- Disinfect your gloved hands each time you move outside the defined work area (*)
- Paperwork must not be placed inside the defined work area.
- All welfare or research considerations should be communicated to the researcher as per the Veterinary Care Protocol

- In the event of a cage being dropped and opened follow facility specific spills procedure
- Adverse events should be referred to UQBR SOP 22 Veterinary Care Protocol

V. SAFETY

1. PPE use is essential when handling laboratory rodents
2. All accidents, injury or near misses are to be reported immediately to the Facility Manager and recorded on a UQ OHS Incident Report Form
3. Ergonomics must be considered when completing this task to prevent muscle and joint injuries. Ensure equipment items are arranged to lessen bending and twisting.
4. Bench height may be adjustable – ensure bench is adjusted to the correct height by using the hydraulic controls. – add this to standard when inserted
5. Any items to be lifted must be 10kg or less
6. Risk Assessments specific to the project must be read and understood prior to working within a containment room

VI. REFERENCES

1. Australian code for the care and use of animals for scientific purposes (8th Edition, NHMRC 2013): https://www.nhmrc.gov.au/guidelines/publications/ea28
2. Code of Practice for the Housing and Care of Laboratory Mice, Rats, Guinea Pigs and Rabbits (DEPI, Vic 2004): http://www.depi.vic.gov.au/agriculture-and-food/animal-health-and-welfare/animal-welfare/animal-welfare-legislation/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-housing-and-care-of-laboratory-mice,-rats,-guinea-pigs-and-rabbits
3. Department of Agriculture and Fisheries (DAF): http://www.daf.qld.gov.au/
4. Guidelines to promote the wellbeing of animals used for scientific purposes (NHMRC, 2008): https://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/ea18.pdf
5. OGTR PC2 work requirements and regulations: http://www.ogtr.gov.au
6. QLD WH&S Act 2011: https://www.worksafe.qld.gov.au/laws-and-compliance/workplace-health-and-safety-laws/laws-and-legislation/work-health-and-safety-act-2011
7. UQ Animal Ethics Unit SOPs: http://www.uq.edu.au/research/integrity-compliance/standard-operating-procedures-sops
8. UQ OHS Unit: http://www.uq.edu.au/ohs/
9. UQ OHS Incident Report Form: http://www.uq.edu.au/ohs/index.html?page=141331
10. UQBR SOPs: V:UQBR/SOPs/Common/UQBR SOPs and http://biological-resources.uq.edu.au/secure/uqbr-sops