Biological Risk Management and Containment

Classification by risk group

Work Practices Reference Information

Containment Laboratory Guidelines

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This document was originally Version 1 which was extensively reviewed and approved in February 2021.

Record of Amendments to Version 2

Date	Page number	Nature of amendment
29/11/24		NIH reference removed
30/11/24	All	University Logo updated
30/11/24		Minor changes through the document

Contents

1. Who is this reference document for?

This document is intended for **principal investigators (PIs), designated persons in charge, designated laboratory person (DLPs),** technical staff and students trained in the safe use of risk biological materials in appropriate containment facilities.

Identifying the classification of these materials by risk group is key to inform a risk assessment to meet the requirements of the Biological Risk Management and Containment Standard.

2. Requirements of the Biological Risk Management and Containment Standard

2.1. Working with RG2 micro-organism or higher

Work with micro-organisms with a risk classification of Risk Group 2 or higher must receive prior approval from the University of **Auckland Biological Safety Committee (BSC)**. This requirement also applies to clinical specimens that have been shown to contain such micro-organisms.

2.1.1. How are applications made to the BSC?

Only principal investigators (PIs) can formally apply to the BSC. However, other laboratory personnel and students are most welcome to contact the BSC with any queries or concerns: Biological Safety Committee. Moreover, the application form and instructions can be found at the same link.

2.2. Importing or developing GMOs

Applications to import or develop GMOs of any Risk Group require an approval by the Environmental Protection Authority (EPA).

2.2.1. Applications to the EPA

Applications to the EPA are to be made to the University of Auckland Biological Safety Committee in the first instance. Instructions can be found at the following link Biological Safety Committee.

3. Classification of biohazardous agents by risk group

Researchers are responsible to identify the risk group of the organism that are working with. There is no definite list as even the risk for the same species might change according to genetic changes, use, methodology and country. The *ASNZ2243.3:2022* standard provides guidance for microbial classification in Australia and New Zealand, adapting current WHO guidelines to regional requirements.

It is recommended to consult *ASNZ2243.3:2022 section 3.2 Classification of microorganisms by risk group*, (available in the Library, under the Standard New Zealand database) for detailed guidance on the classification of biohazardous agents by risk group.

Another useful tool to establish the basis of a risk assessment and comprehend international requirements, the recommended resource is the Risk Group Database managed by ABSA international (American Biological Safety Association). This is in the format of a website and a phone app.

4. Biological safety levels and risk groups

Risk groups and biological safety levels are both used to classify and handle biological agents, but they are not the same thing. Risk groups classify agents based on their potential to cause disease, while biosafety levels prescribe the containment measures needed to work safely with those agents. While there is a general correlation between

the two, with higher risk groups often requiring higher biosafety levels, the WHO does not recommend a direct equivalence between the two, and this is reflected on the ASNZ2243.3:2022. This is because the appropriate biosafety level for a particular agent depends on a number of factors, including the agent's pathogenicity, mode of transmission, and the specific procedures being performed. Therefore, a risk assessment through a BSC application needs to be conducted to determine the appropriate biosafety level for higher risk microorganism.

5. Definitions

Designated laboratory person (DLP) means the trained person in each research group who has been given the authority to receive purchase requests made in SciTrack and to make a formal request for a purchase order via PeopleSoft. In containment and transitional facilities DLPs will have additional training to enable them to scrutinise documentation for restricted items and provide support to researchers.

Designated person in charge means a staff member in any of the following roles: sector manager, facility manager, floor manager, technical manager or an appointed delegate.

Principal Investigator (PI): In the context of hazard containment and transitional facilities, a principal investigator is the holder of an independent grant administered by the University and the lead researcher for the grant project, usually in the sciences, such as a laboratory study or a clinical trial. The phrase is also often used as a synonym for "head of the laboratory" or "research group leader." The PI is responsible for assuring compliance with applicable University standards and procedures, and for the oversight of the research study and the informed consent process. Although the PI may delegate tasks, they retain responsibility for the conduct of the study.