

Standard Operating Procedure

Task/Activity/Equipment: Procedures in the event of an unintentional release of a GMO or risk group 2 microorganism	
Purpose: To outline the incident management and reporting procedures in the event of an unintentional release from containment of a GMO or risk group 2 microorganism at Flinders University.	
Location: Flinders University	Reference Number: IBC-SOP-30 Version: 1.0
Written by: Dr Jess Hall, Biosafety Specialist	Reviewed by: Institutional Biosafety Committee
Approved by: Belinda Cox, Biosafety Officer	
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Replaces the version: Not applicable (1 st version)	
Changes to the last approved version: Not applicable (1 st version)	

1. POTENTIAL HAZARDS

Infectious substances	Genetically modified organisms
Risk group 1 or 2 microorganisms	Diagnostic specimens

2. TERMS & ACRONYMS

GMO	Genetically Modified Organism
RG2	Risk group 2

3. RELEVANT LEGISLATION, GUIDELINES & STANDARDS

- *Gene Technology Act 2000*
- *Gene Technology Regulations 2001*
- OGTR Guidelines for Certification of a Physical Containment Facility (PC1, PC2)
- *Australian/New Zealand Standard 2243.3 Microbiological Safety and Containment*

4. SWP SCOPE AND COVERAGE

The purpose of this document is to define the response procedures required if a viable GMO, or an organism or sample containing a viable GMO or infectious microorganism is released from physical containment. This may arise because of several different scenarios or incidents, including but not limited to the following indicative examples:

- Escape of a live GMO animal or invertebrate or an animal or invertebrate containing a GMO or infectious microorganism from a containment facility into an adjacent area.
- Spillage of a GMO or microbiological sample outside of a containment facility.
- Insect intrusion into a plant containment facility resulting in removal of seeds, pollen etc. from the containment facility by the insects.
- Theft of GMOs, microorganisms or samples containing these from a storage location or containment facility.
- Biohazardous waste being misdirected to general or recyclable waste stream and collected by waste contractors.

A range of risk controls are required to be implemented to prevent such release from occurring, and these are documented throughout this manual and in local SOPs where relevant.

5. WHS CONSIDERATIONS

Refer to risk assessments, Safe Work Method Statements for chemicals, processes, and plant equipment where appropriate. All projects must have an accompanying Risk Assessment signed by the project and facility manager. All Notifiable Low Risk Dealings must have a risk assessment approved by the Institutional Biosafety Committee.

Refer to the "Biohazard Spill or Unintentional Release" flow chart, displayed in PC facilities, and available on the Biosafety website.

Where responding to an unintentional release where you will or may physically contact viable GMOs, infectious microorganisms or organisms or samples containing either of these, ensure that you wear the minimum PPE required for safe handling of the organism or sample. Ensure that you employ spill management procedures where the unintentional release involves a spill scenario and that you wash your hands after handling any organisms or samples.

6. PROCEDURES

Local procedures exist for plant, invertebrate and animal facilities at Flinders. Please refer to local procedures for specific instruction. The steps below outline generic processes that should be implemented in the event of an unintentional release.

- 1 For spilt materials (e.g., spilt microbiological culture), follow spill clean-up procedures documented in IBC-SOP-29.
- 2 Other than for spilt materials covered by IBC-SOP-29, if immediately possible and safe to do so, retain or recapture the organism and return to a primary containment device (e.g., IVC cage, insect cage or sealed plastic box).
- 3 If it is not possible to immediately retain or recapture, ensure that doors to the affected room and surrounding area are closed, and notify others nearby about the issue requesting that they aid in restricting access to the area.
- 4 Once the area is secured and enclosed, attempt to locate the missing GMO, organism or sample and return it to containment.
- 5 Where the loss has occurred between facilities or during transport, back-track route to try to locate.
- 6 Where the GMO, organism or sample is unable to be located, contact the IBC as soon as possible. The IBC may request that further steps be taken to monitor the area and will request further information where required for reporting to relevant regulators.
- 7 Where the loss is suspected to have occurred due to theft or break-in, contact University Security, and follow any directions regarding making a report to the SA Police.

7. NOTIFICATION AND REPORTING REQUIREMENTS

- 1 A Researcher must notify their supervisor or facility manager from the affected containment facility, and the IBC, of a confirmed or suspected unintentional release, as soon as possible. This shall be reported to the IBC via the incident reporting phone number: (08) 8201 5277.
- 2 The IBC Chair, with assistance from the Biosafety Officer shall investigate the circumstances of the unintentional release, and where applicable shall specify any further actions required. Where the Chair is absent, then the Deputy Chair shall take responsibility.
- 3 Once the unintentional release has been confirmed, or if there is enough doubt indicating that a release is most likely to have occurred, the IBC Chair and Biosafety Officer shall notify applicable personnel across the University and/or FMC. The IBC maintains a notification schedule that has been approved by the Deputy Vice Chancellor (Research) for this purpose.
- 4 Where applicable, the IBC Chair shall prepare a report for the DVCR to provide to the OGTR within 24 hours of the event.

8. APPLICABILITY

These procedures are applicable to all persons handling GMOs, infectious microorganisms or organisms or samples containing either of these, or to any person involved in an unintentional release event.

9. CONTACTS

Biosafety Officer	Belinda Cox	ibcadmin@flinders.edu.au ph. (08) 82013436
IBC Incident Reporting		ph. (08) 8201 5277

10. DEFINITIONS

<i>Personal Protective Equipment (PPE)</i>	Items worn or used by people accessing a containment facility to help keep them protected within the facility and to minimise the risk of contamination of personal clothing that may be carried outside of the facility. This includes, for example, enclosed shoes, laboratory gowns, gloves, safety glasses or face masks.
<i>Physical Containment (PC) Facility</i>	A facility used for the containment of biohazards, and, where certified by the Office of the Gene Technology Regulator, for dealings involving GMOs.
<i>Unintentional Release</i>	Loss of containment of regulated biological goods occurring because of accidental or unanticipated incidents. This may include, for example, escape of a laboratory rodent from a containment facility, spillage of microorganism or GMO cultures outside of a containment facility, or GMO plant material being carried out of a containment facility by insect pests.
<i>Viable</i>	Capable of surviving or multiplying, even where challenged or sub-lethally damaged (e.g., by being frozen, dried, heated or affected by chemicals, including decontamination agents).