Transport of Biological Materials Procedure

Section 1 - Purpose and Scope

(1) This Procedure outlines the requirements at The University of Queensland (UQ) for transporting biological material – including infectious, diagnostic, genetically modified and biosecurity material – by air or surface. The definition of "biological material" for the purposes of this Procedure is provided in the appendix.

(2) This Procedure applies to all UQ workers – including staff, students, visitors, volunteers and contractors – working with and transporting biological material at UQ. For the purposes of this Procedure, the definition of UQ workers is broad to support UQ's responsibilities under the Work Health and Safety Act 2011. The definition of UQ workers is provided in the appendix.

(3) This Procedure supports and should be read in conjunction with UQ's Biosafety Policy and other relevant procedures (e.g. Working with Biosecurity Goods Procedure if biological material is being imported).

Context

(4) The Australian Government regulates biological materials under the Gene Technology Act 2000. The Office of the Gene Technology Regulator (OGTR) administers requirements of the Act and classifies materials based on risk to the health and safety of people and the environment.

(5) The transport of biological materials must also comply with requirements of the following:

a. The National Transport Commission's Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); and
b. The OGTR's Guidelines for the Transport, Storage and Disposal of GMOs.

Section 2 - Process and Key Controls

(6) UQ workers must comply with the following measures when transporting biological materials at UQ:

a. Determine whether the biological materials are classified as dangerous goods by the ADG Code and comply with relevant transport requirements or restrictions under the Code;
b. Determine and comply with additional regulatory requirements including in relation to:
    i. import/export conditions;
    ii. storage and disposal;
    iii. air, road, rail and postal transportation; and
    iv. packaging and labelling.
c. In all cases of transport of biological material, a risk assessment must be conducted to determine the risk associated with spills, loss or theft during transport.
d. Recording, tracking and accounting procedures must be in place so as to minimise loss of goods.
e. Spills, loss or theft of biological materials must be reported to a UQ Biosafety Advisor and the incident must be recorded in UQSafe.

Section 3 - Key Requirements

Dangerous Good Requirements

(7) Class 6 of the ADG Code identifies toxic substances and infectious substances, which have associated transport conditions. UQ workers must ensure the transport of biological materials identified in these classes comply with the ADG Code. Refer to the ADG Code for further detail or contact a Work Health and Safety Coordinator, Health, Safety and Wellness Manager, or UQ's Biosafety Team (biosafety@uq.edu.au) for more information.

Toxic Substances (Class 6.1)

(8) Toxins from plant, animal or bacterial sources should be considered under Class 6.1 Toxic substances.

Infectious Substances (Class 6.2)

(9) These are known pathogens or are reasonably expected to contain pathogens. There are two categories of biological material defined in Class 6.2:

a. Category A – Infectious substances transported in a form that when exposure occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals.
b. Category B – Infectious substances that do not meet the criteria for inclusion in Category A.

Other GMOS or Substances

(10) GMOs or substances not identified as Class 6 are not subject to the ADG Code unless they meet criteria for inclusion in another class.

(11) GMOs that do not meet the definition of a toxic or infectious substance must be transported according to the OGTR's transport guidelines.

Import and Export Requirements

(12) A permit may be required for importing or exporting biological material. UQ workers must ensure that all requirements for the import and export of biological materials are met in accordance with the following:

a. Working with Biosecurity Goods Procedure;
b. Export controls including requirements for materials on the Defence and Strategic Goods List; and
c. Security Sensitive Biological Agents (SSBA) Regulatory Scheme.

(13) Contact a Work Health and Safety Coordinator, Health, Safety and Wellness Manager or UQ's Biosafety Team (biosafety@uq.edu.au) for more information about import and export requirements for transporting biological material.

Transporting Live Animals

(14) Animals containing genetically modified (GM) micro-organisms have specific containment, labelling and decontamination procedures under the OGTR's Guidelines for the Transport, Storage and Disposal of GMOs. The guidelines note that consideration should be given to alternatives to the transport of animals or plants that host pathogenic GM micro-organisms, such as transporting cultures of the micro-organisms for later inoculation.

(15) Genetically modified animals not containing GM microorganisms (e.g. Drosophila melanogaster) have their own specific containment, labelling, segregation and decontamination of containers procedures within the OGTR guidelines depending upon their physical containment status.

(16) Transport of non-GM live animals may be subject to other requirements. Refer to the Working with Biosecurity Goods Procedure and the Responsible Care and Use of Animals in Teaching and Research Policy for other requirements when transporting live animals.

(17) Contact a Work Health and Safety Coordinator, Health, Safety and Wellness Manager or UQ's Biosafety Team (biosafety@uq.edu.au) for more information about requirements for transporting live animals.

Transportation by Air

(18) Any biological material to be transported by air must be packaged and labelled according to International Air Transport Association (IATA) requirements and accompanied by a declaration from an IATA approved packager. UQ staff transporting biological materials by air must complete the IATA's packaging training or contact the local Work Health and Safety Coordinator, Health, Safety and Wellness Manager or UQ's Biosafety Team (biosafety@uq.edu.au) for details of IATA approved packagers. It is advised that a recognised courier be engaged to transport any infectious material in order to comply with IATA requirements.

(19) UQ staff should consult individual airlines for requirements for carrying biological materials on commercial flights.

(20) UQ staff should be aware of the following:

a. Infectious substances are prohibited by Australia Post via international mail. Infectious substances may be sent domestically within Australia from UQ using Australia Post under very strict conditions as set out in Section D10.3 – Infectious Substances, Dangerous and Prohibited Goods & Packaging Post Guide (2009).
b. Some countries will not accept any biological material through the post, it is the sender's responsibility to determine what these requirements are – refer to the International Post Guide.

Transportation by Road or Rail

(21) The ADG Code requires biological material to be packaged and labelled as per the specific biological material transport requirements.

(22) The use of private vehicles for transporting Infectious Substances (Class 6.2 - Category A or B) biological materials is discouraged. UQ staff are encouraged to use a UQ vehicle for transporting biological material by road.

(23) Brisbane Transport (Translink) does not permit the carrying of Infectious Substances (Class 6.2 - Category A or B) biological material or any biological material packed with dry ice on public transport.

Transport on a UQ Campus or Site

(24) UQ staff may transport biological material within a campus or site (e.g. within or between buildings), through thoroughfare areas (e.g. using goods lift that is also accessed by non-laboratory trained/non-authorised persons), provided that packaging and labelling requirements are met as outlined under clauses 27 to 30 of this Procedure. Biological material may only be moved to an appropriately authorised location and must be accompanied by an authorised person at all times. Relevant dealing or permit conditions must allow for the transport.

(25) Decontamination of containers (including wheelie bins, trolleys and eskies) is required prior to transport and on arrival (unless kept in a certified facility). The outer surfaces of the goods and the outermost container must be free of contamination prior to transport.

Transport Within UQ Buildings

(26) Where biological material is transported within a building (outside of certified spaces), through non thoroughfare areas, the material must be contained in an appropriate manner as determined by the category of material and the

classification of the facility. For example, PC2 material from a PC2 facility must be contained and accompanied by an authorised person at all times; PC3 material from a PC3 facility must be double contained, and the outside of the container decontaminated and accompanied by an authorised person at all times.

Packaging and Labelling

(27) The following conditions apply to packaging biological materials for transport:

a. The packaging should consist of four components:
    i. A leak-proof primary receptacle;
    ii. A leak-proof secondary packaging;
    iii. An outer packaging of adequate strength for its capacity, mass and intended use; and
    iv. Labelling to identify the contents and contact details of person to contact in the event of a spill.
b. For liquids, absorbent material in sufficient quantity to absorb the entire contents should be placed between the primary receptacle and the secondary package.
c. When multiple fragile primary receptacles are placed in a single secondary package, they should be either individually wrapped or separated to prevent contact between them.

(28) If transporting by air, the packaging must be IATA approved and stamped with an approval. In addition, the outermost layer must have the appropriate UN number or UN ID, the shipping name, an itemised list of the contents and a shipper's declaration. For more information, consult Business Queensland and IATA.

(29) If it is intended to re-use transport containers or packaging:

a. examine packaging before re-use;
b. do not re-use if damaged in any way;
c. if secondary or outer packaging is soiled then packaging must be decontaminated before re-use; and
d. remove irrelevant markings before re-use.

(30) Refer to specific license condition requirements if the biological material is covered by a dealing (e.g. Dealing Involving Intentional Release; Dealing Not Involving Intentional Release; and Notifiable Low-Risk Dealing) or import permit.

Management of Spills, Loss or Theft of Materials

(31) In all cases of transport of biological material, a risk assessment must be conducted to determine the risk associated with spills, loss or theft during transport. Recording, tracking and accounting procedures must be in place so as to minimise loss of goods. Records are required to reflect biologicals sent and received.

(32) Where a spill, loss or theft has occurred, all reasonable action must be taken to obtain the material and/or render it non-viable. Spill, loss or theft must be reported to a UQ Biosafety Advisor (biosafety@uq.edu.au) as soon as possible along with any actions taken to recover the material. Biosafety Advisors will notify the relevant regulator as required. The incident must be entered into UQSafe.

(33) A contingency plan must be in place for all transport to account for spills or loss of material during transport, and/or the failure of delivery. This plan can also include a spill procedure, emergency contacts and a copy of the dealing if the material is a GMO. In addition to the spill instructions, a decontamination agent may need to be included in transport, depending on the risk assessment. However, consideration must be given to any further risk that a decontamination agent may add (e.g. bleach is considered a dangerous good).

Section 4 - Roles, Responsibilities and Accountabilities

Chief Investigators

(34) Chief Investigators are responsible for the ongoing monitoring, management and oversight of work with biological material under their control and must ensure that biological material is packaged and transported according to the appropriate requirements outlined in this Procedure.

UQ Workers

(35) All UQ workers working with biological material at UQ must comply with this Procedure, understand and comply with any additional regulatory requirements, including ensuring that:

a. material is packaged and transported according to the appropriate ADG Code class requirements;
b. records are kept of transport activities;
c. spills, loss and theft of biological material is notified to a UQ Biosafety Advisor and report in UQSafe.

Biosafety Advisors

(36) Biosafety Advisors within the Health, Safety and Wellness Division are responsible for:

a. providing UQ workers with education, information and support to enable them to understand their transport of biological material compliance obligations at UQ; and
b. notifying the relevant regulator in the event of a spill or unintentional release of biological materials.

Section 5 - Monitoring, Review and Assurance

(37) Transport of biological material transport practices will be reviewed and monitored regularly by the relevant Chief Investigator to ensure:

a. compliance with regulatory requirements; and
b. that accurate records of transport are maintained.

(38) UQ’s Biosafety Advisors will:

a. review transport records during annual certified facility inspections; and
b. monitor biosafety regulatory requirements and changes to industry codes, standards and guidelines; and
c. revise this Procedure as required to ensure its relevancy and currency.

(39) Annual audits of UQ’s certified facilities and biosafety goods are undertaken by persons authorised by the UQ Institutional Biosafety Committee (IBC), to ensure that:

a. dealings, transport and facilities meet requirements; and
b. all UQ workers working with, handling, using or storing materials (both at UQ and non-UQ locations), are compliant with regulations and transport requirements.

Non-compliance

(40) UQ workers and Chief Investigators that do not comply with this Procedure will be subject to corrective actions from UQ's IBC and/or the Health, Safety and Wellness Division, and suspension of work if conditions are not met. Breaches of transport regulations may result in non compliance corrective actions being issued by the relevant regulator. UQ's IBC, based on the evidence of multiple non-compliances, may refuse approval which may affect future work and other applications e.g. OGTR licences, import permits, grants and ethics approvals.

Section 6 - Recording and Reporting

(41) UQ's IBC is responsible for producing an annual report to the OGTR, non-compliance reporting to the OGTR and Department of Agriculture, Water and the Environment, and meeting any other reporting requests from regulators.

(42) UQ's Health, Safety and Wellness Division reports regularly to senior UQ management, including the reporting of any non-compliances involving significant engagement with the involved regulators.

(43) In addition, all incidents or near misses involving biological materials are reported in UQSafe which are investigated by the relevant Chief Investigator and UQ's Biosafety Advisors.

Section 7 - Appendix

Definitions

Term	Definition
Biological material	Any material derived from living organisms. For the purposes of this Procedure, includes human or animal blood, body fluids, tissue samples, derived cell lines or GMO/GMMOs.
Biosecurity	Materials under Permit/Quarantine regulations and requirements, as described in UQ's Working with Biosecurity Goods Procedure.
Chief Investigator	For the purposes of this Procedure, includes group leaders, supervisors, managers, and academic principal advisors that are conducting research at UQ and hold an academic or research appointment.
GM/GMO/GMMO	Genetically Modified/Genetically Modified Organism/Genetically Modified Microorganism.
IATA	International Air Transport Association.
IBC	UQ's Institutional Biosafety Committee.
OGTR	Office of the Gene Technology Regulator (Australian Government).
Pathogens	Micro-organisms (including bacteria, viruses, rickettsia, parasites, fungi) and other agents such as prions, which can cause disease in humans or animals.
UN number / UN ID	The 4-digit number that identifies dangerous goods, hazardous substances and articles in the framework of international transport.
UQ workers	For the purposes of this Procedure includes: 1. staff – continuing, fixed-term, research (contingent funding) and casual staff members; 2. contractors, subcontractors and consultants; 3. visiting academics and researchers; 4. affiliates – academic titles holders, visiting academics, emeritus professors, adjunct and honorary title holders, industry fellows and conjoint appointments; 5. higher degree by research students; and 6. volunteers and students undertaking work experience.

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