HAZARDOUS WASTE MANAGEMENT PROCEDURES MANUAL

BUNDOORA CAMPUS

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1. INTRODUCTION

There are many pressures faced by organisations today in order to ensure that they are operating in a manner that is considered sound environmental practice, while still ensuring that they provide the services required from them. In recent years, additional focus has come from Governments and communities with respect to environmental performance of all organisations. This focus has (among other issues), been directed at the amount and types of wastes being generated. Organisations must respond, and are doing so, to the call to reduce wastes.

Waste management must be approached with the emphasis on waste minimisation rather than what has been termed "end-of-pipe" controls. This has many benefits to the organisation, as well as to the community and the environment. One of the more obvious benefits is the reduction in costs associated with waste generation.

Facilities generating waste have a legal responsibility towards waste management. They also have moral and social responsibilities. These latter responsibilities directly affect staff and the wider community. Regulations for the correct disposal of wastes listed as Prescribed Wastes have been in-force for many years. These require that the listed waste types are not disposed of via the general waste stream. Penalties exist for the improper disposal of these wastes.

In Victoria, the Government released "The Industrial Waste Strategy" in 1986. This Strategy provided a framework for the management of hazardous wastes. Importantly, the Strategy influenced the enactment of various Regulations (Prescribed Waste Regulations) to ensure that the handling, storage, transport and disposal/treatment of this waste stream was done with due regard to the environment and health and safety.

This approach has been strengthened with the enactment in 1990 of the Industrial Waste Management Policy (Waste Minimisation). This Policy aims to reduce the amount of waste generated and provide the EPA with the necessary legislative tools to encourage the use of waste audits and the development of waste management plans by any organisation generating Industrial Waste.

Correct waste management (hazardous and non-hazardous), involves a structured program to ensure that any wastes generated are correctly identified in terms of their potential hazard to the environment and any staff handling them. It also ensures wastes are correctly labelled, containerised to ensure that they cannot spill, stored in a manner to prevent off-site migration of wastes and non-authorised persons access, transported according to legislation, and disposed of in accord with best-practice environmental guidelines.

At all times consideration must be given to the environment and any persons who may come into contact with the waste during packaging, transport and disposal phases. Legal requirements must be viewed as the minimum standards to be achieved. All waste generating organisations, should have as the core of its waste management strategy, the recognised waste management hierarchy of:

- **reduce the amount of waste generated**
- **reuse waste materials wherever possible**
- **recycle wastes**

This means that in order to minimise the impact of wastes on the environment, as well as to reduce costs, all possibilities for reducing the need to generate waste should be explored. The adoption of any opportunities should of course be evaluated against all relevant issues, including service/product quality, occupational health and safety and relevant legislation.

Waste Audit and Consultancy Services (Aust) Pty Ltd undertook a review of Hazardous Waste Management at LaTrobe University (Bundoora Campus) in November 1996. This review identified several aspects of hazardous waste management that need to be improved to ensure that the environment, and the health and safety of LaTrobe University staff, students and the community is not compromised.

This Hazardous Waste Management Procedures Manual has been developed to provide the advice and guidance required by LaTrobe University (Bundoora Campus) staff to manage hazardous wastes, in line with current legislation and to reduce the environmental impacts of those wastes.

The development of the Hazardous Waste Management Procedures Manual for LaTrobe University (Bundoora Campus) has been sited on the established principles of:

> **Cradle to grave,** where the waste generator has the responsibility to ensure all wastes are managed from generation to final disposal; and
>
> **Source segregation,** where wastes/recyclables are separated at the point of generation to ensure that contamination does not occur and that wastes/recyclables are managed to minimise wastes requiring disposal.

This Manual is a living document and must be reviewed annually and updated where necessary. If new hazardous wastes are generated, new opportunities for reuse/recycling develop or legislative requirements are amended, this Manual should be amended accordingly. Simply supplying staff with copies of this manual, and/or summaries is not sufficient. Staff must be actively educated in their responsibilities and given the necessary tools in order to implement the requirements. The induction/education program must emphasise the approach of waste avoidance as the prime area of responsibility.

It must be noted that this Hazardous Waste Management Procedures Manual addresses those wastes that are generated after all waste minimisation opportunities have been adopted.

1.1 SCOPE

The scope of the Hazardous Waste Management Procedures Manual is to ensure that hazardous waste management practices are consistent across all Departments within LaTrobe University (Bundoora Campus). This Procedures Manual is a detailed document outlining the specific management procedures for the safe packaging, labelling, on-site transport and storage of hazardous waste types, detailed from a review of Hazardous Waste Management at LaTrobe University (Bundoora Campus), undertaken by Waste Audit and Consultancy Services (Aust) Pty Ltd in November 1996.

2. CONTACT PERSONAL AND ORGANISATIONAL RESPONSIBILITIES

2.1 CONTACT PERSONNEL

This Hazardous Waste Procedures Manual contains the appropriate procedures that must be followed to ensure that all wastes and recyclables are managed in accordance with LaTrobe University (Bundoora Campus) orders and policies.

If you have any questions on this Procedures Manual, or on any waste management issues, please contact the University's Occupational Health and Safety Section on 9479 2186 or 9479 1186.

The following are the contact details for those LaTrobe University staff members who have day- to-day responsibility for waste management and who can provide advice as required. Initial contact should be made with the staff member from your School or Department.

SCHOOL	NAME	TELEPHONE
Agriculture	Allan Lee	9479 2193
Biochemistry	Ian Croker	9479 2160
Botany	Doug Oakley	9479 1383
Chemistry	Debbie Del Frate	9479 2547
Earth Sciences	Terry Ryan	9479 2613
Genetics & HV	Ian Croker	9479 2160
Microbiology	Ron Clarke	9479 2218
Psychology	David Richardson	9479 2935
Zoology	Fran Pizzey	9479 2236
Central Animal House	Mark Jois	9479 3916
Human Biosciences	Brian Rice	9479 5816

It is the responsibility of all responsible officers in each School/Department generating hazardous wastes to take appropriate actions to:

- Minimise the generation of hazardous wastes wherever possible.
- Ensure all staff/students are aware of these Procedures and of the requirements contained therein.
- Ensure that all staff/students attend appropriate education programs to enable them to comply with the requirements of these Procedures.
- Develop protocols so that all staff/students generating wastes through teaching/research procedures advise the officer responsible for waste management of waste management issues prior to commencing activities.
- Apply appropriate management strategies to general wastes and recyclables.

3. PRINCIPLES OF HAZARDOUS WASTE MANAGEMENT

A hazardous waste is a waste containing significant quantities of a substance that may constitute a danger to the life or health of living organisms and the environment, or pose a threat to the safety of humans or equipment if incorrectly handled. Hazardous waste properties include toxicity, flammability, chemical reactivity, corrosivity, radioactivity and infectiousness.

Principles

Due to the inherent risks with the generation and handling of hazardous wastes to humans, the environment and the wider community, extreme care must be maintained when handling, packaging, transporting and disposing of these wastes. Because of these risks and due to many improper practices in the past, Governments have imposed strict requirements on all generators, transporters and disposal site operators to ensure that there is protection to the community and the environment.

The liabilities that come with these requirements can simply be removed by not generating the hazardous waste in the first instance. If this cannot be avoided, then all hazardous wastes must be:

- Handled by staff with knowledge and access to appropriate Personal Protective Equipment;
- Packaged so that there is no risk of wastes escaping; and
- Transported and disposed of in accordance with Victorian EPA requirements and the Australian Code for the Transport of Dangerous Goods by Road and Rail.

The basic principle of hazardous waste management, is that you treat a waste "load" according to the characteristics of the most hazardous component. That is, if there was one litre of hazardous materials in a container containing garden waste, then all the waste must be considered hazardous. Therefore, the basis of hazardous waste management is to ensure that these wastes are segregated from all other wastes and recyclables.

The regulatory framework for the classification and management of Prescribed Waste is currently undergoing review in Victoria by the Victorian EPA. Management strategies and procedures will be dependent on the outcome of that review.

All staff/students, when developing research proposals and/or teaching programs are required to advise the person responsible for waste management within their School of all waste management requirements û prior to commencement of the activity.

4. TRANSPORT OF HAZARDOUS WASTE

4.1 INTERNAL TRANSPORT

The following requirements should be implemented for the internal transport of hazardous waste. This is of the hazardous waste containers from point of generation (eg., laboratory and/or School/Department storage area), to the designated hazardous waste storage area for the School/Department and for the specific waste type.

All staff and students should receive education in the requirements for safe handling and transport of all hazardous wastes. This training should be provided during staff induction programs; during student orientation programs; and on an annual basis to staff and students.

All staff and students should be trained in the use of, and wear appropriate personal protective equipment (PPE) when handling and/or transporting hazardous wastes. PPE includes:

- Eye protection
- Mouth cover
- Protective clothing, gown, lab. coat, overalls etc.
- Safety footwear, boots preferred
- Gloves
- Face mask or respiratory protection for vapour/fumes where required, fitted with appropriate canisters for potential vapour/fumes. In some instances independent air respiratory equipment will be required.

All waste containers must be sealed prior to any transport. Waste containers should not be transported by hand, unless designed with a carry handle and there is no risk of the waste material spilling during transit. They should be transported by the use of a dedicated trolley or mobile garbage bin (MGB), if appropriate, that has the capacity to contain any spillages.

Wastes should be transported in a safe manner to ensure bags/containers cannot fall from the collection trolley.

All spills must be immediately reported to the Occupational Health and Safety Section or Central Control. Actions must be commenced immediately in the event of a spill to protect the environment and staff/students.

Wastes when collected from School/Department, must be transported immediately to the storage area. Under no circumstances should wastes be left unattended at any other site than the designated waste storage site.

4.2 EXTERNAL TRANSPORT

Waste contractors will only accept wastes that are packaged/sealed in such a manner to avoid risk to the environment or human health. It is the responsibility of the School/Department to ensure that all staff are aware of packaging and transport requirements and the implications of not following these procedures.

All wastes transported off-site must be done in a manner that will protect the environment and human health. Transport must also be conducted in accord with EPA Regulations and requirements specified in the Australian Code for the Transport of Dangerous Goods by Road and Rail. In summary, these requirements are:

- Vehicles transporting Prescribed Waste must hold a permit from the EPA for the specific waste type(s).
- The vehicle must use the appropriate placards when transporting the waste(s).
- An EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type.
- The waste(s) must only be disposed of to a site that has been specifically licenced by the EPA for the particular waste(s) this is referred to as a Schedule 4 premise.

EPA Bulletins, Dangerous Goods Requirements for the Transport of Prescribed Waste (Bulletin 416), and Instructions for the Completion of Waste Transport Certificates (Bulletin 395), should be referred to understand the requirements imposed on waste contractors (refer to Appendix C for copies of these documents).

5. HAZARDOUS WASTE STORAGE FACILITIES

A storage site for hazardous wastes, can be a purpose built facility or an existing facility/room that has been modified. The key consideration in the storage of hazardous wastes is its safe and secure containment in a clean and tidy area, which allows access by both University staff for the depositing of wastes, and waste contractors for the collection of the wastes.

The following are the minimum requirements for hazardous waste storage areas:

1. The storage area shall have an impervious surface and must contain any spillage. This can be achieved by bunding, by a sump, or by an inward sloping floor or tray. The storage area should have protection from the weather.

2. Where practicable, all loading and unloading shall take place within the containment area. Loading and unloading procedures must be undertaken in a manner that ensures wastes will not spill or containers break.

3. Where vehicular access to a bunded area is required, the bund shall be rounded to prevent its damage by vehicles.

4. All wastes shall be stored and supervised in accordance with all relevant legislation, regulations, guidelines and LaTrobe University policies.

5. Containers storing hazardous wastes shall be securely closed at all times.

6. There shall be dedicated hazardous waste storage areas, so that there is no mixing of wastes with other stored material. This includes the mixing of incompatible hazard classes. Wastes must only be deposited into designated areas within the applicable storage area.

7. Signs shall be clearly placarded designating what wastes are to be deposited into the storage area and any specific directions/hazards.

8. Access shall be limited to authorised persons.

9. Hazardous waste stores must be securely locked at all times to prevent access by unauthorised persons.

10. The stored wastes shall be labelled by the waste generator (within the School/Department), so that it is readily apparent what type of material is stored within.

11. There shall be adequate containment measures to prevent off-site migration of spills.

12. Necessary clean-up equipment (spill kit) shall be provided.

13. No liquid wastes, washdown waters or stormwater waste contaminated with hazardous wastes shall be disposed of via the stormwater drainage system.

6. HAZARDOUS WASTE MANAGEMENT DECISION TREE

WASTE DESCRIPTION		**ACTION**
Is the waste **Radioactive**		Solid waste should be placed in approved bags and removed to the Radiation Waste Store. Liquid waste should be stored in a suitable container and removed to the Radiation Waste Store
Is the waste **Infectious**	Is it **Sharps** Waste	Deposit into yellow plastic sharps containers and transport to the Infectious Waste Store when container is full
	Does the waste contain **Animal Carcasses**	Store in freezer until collection. Deposit into yellow bags or pails and transport to the Infectious Waste Store
		Deposit into yellow bags or pails and transport to the infectious waste store
Is the waste **Chemical** or **Pharmaceutical** waste		Deposit into a container that will ensure the contents cannot leak out and clearly label according to School, Hazard, and Class and transport to the Chemical Waste Store when full
Is the waste **unwanted glass**, **laboratory equipment** or **chemical containers**		**Broken Equipment & Containers** Deposit into yellow sharps containers and transport to the Infectious Waste Store
		Triple-Rinsed Clean Containers Place into recycling / waste container at Chemical Waste Store
		Empty Winchesters Label by School and label accordingly and transport to Chemical Waste Store
Waste which is not classified as any of the above		Dispose of as **general waste** or recyclables

6. HAZARDOUS WASTE MANAGEMENT FLOWCHART

WASTE TYPE	CONTAINER	STORAGE AREA	DISPOSAL PATHWAY
Biomedical Waste	Yellow container for infectious waste Purple container for cytotoxic waste	Botany, Genetics&HV, Psychology, Zoology - Cage: Rear of Biological Sciences 1 Building Agriculture - Cage: Rear of Agriculture Building Microbiology - Courtyard south of Thomas Cherry Building	Incineration
Sharps Waste	Yellow sharps container	Botany, Genetics&HV, Psychology, Zoology - Cage: Rear of Biological Sciences 1 Building Agriculture - Cage: Rear of Agriculture Building Microbiology - Courtyard south of Thomas Cherry Building	Incineration
Biological Tissue Residues / Animal Carcasses	Yellow bags	Botany, Genetics&HV, Psychology, Zoology - Cage: Rear of Biological Sciences 1 Building Agriculture - Cage: Rear of Agriculture Building Microbiology - Courtyard south of Thomas Cherry Building Central Animal House - Loading Bay	Incineration
Low Level Solid Radioactive Waste	Paper bags with plastic inner liner	Radiation Waste Store Room 150 - Physical Sciences 4 Building	Landfill
Low Level Liquid Radioactive Waste	Containers approved by the Radiation Safety Officer	Radiation Waste Store Room 150 - Physical Sciences 4 Building	Storage and Decay / Incineration

WASTE TYPE	CONTAINER	STORAGE AREA	DISPOSAL PATHWAY
Solid Chemical Waste	Solid containers that can be sealed	Chemical Waste Storage Area: Chemistry Courtyard - Rear Physical Sciences 3 Building	Recycling / Treatment
Liquid Chemical Waste	Bottles as designated by the Waste Contractor	Chemical Waste Storage Area: Chemistry Courtyard - Rear Physical Sciences 3 Building	Recycling / Treatment
Glass Containers	Not rinsed	Chemical Waste Storage Area: Chemistry Courtyard - Rear Physical Sciences 3 Building	Recycling / Treatment
Glass Containers	Triple rinsed	Chemical Waste Storage Area: Chemistry Courtyard - Rear Physical Sciences 3 Building	Recycling / Landfill
Broken and Non-contaminated Glassware	Metal bins	Laboratory or Workshop	General Waste

8. HAZARDOUS WASTE MANAGEMENT PROCEDURES

This section provides detailed information on the manner in which each hazardous waste generated is to be managed. It outlines the procedure that must be followed to ensure the principles of good waste management are adhered to.

The following procedures outline the specific management steps to be undertaken to ensure that the hazardous waste item(s) are disposed/recycled according to all legislative requirements and LaTrobe University Policies.

Any material that is designated as a waste and which could be harmful to health and/or the environment due to its properties either currently or in the future (eg., radioactive waste û animal carcasses) must be:

- Segregated according to the particular hazards associated with the waste type;
- Packaged to ensure that the waste materials cannot escape the container at any time;
- Clearly labelled identifying the type of waste material and the department generating;
- Transported in such a manner to ensure that the health of staff, students, visitors to the University, and/or the environment is not compromised; and
- Stored in the site/area specifically designated for the waste type and for the School/Department generating the waste.

Following the appropriate procedures will ensure the cost of waste disposal is minimised and the health of humans and the environment is maintained. To achieve better hazardous waste management practices across all Departments of LaTrobe University (Bundoora Campus), the following sections have been developed for the Hazardous Waste Procedures Manual:

A. Handling, Transport and Disposal of Biomedical Waste
B. Handling, Transport and Disposal of Sharps Waste
C. Handling, Transport and Disposal of Biological Tissue Residues, Including Animals
D. Handling, Transport and Disposal of Low Level Radioactive Waste
E. Handling, Transport and Disposal of Solid Chemical Waste
F. Handling, Transport and Disposal of Liquid Chemical Waste
G. Disposal of Glass Containers from Laboratories

8A. HANDLING, TRANSPORT & DISPOSAL OF BIOMEDICAL WASTE

8A.1 SCOPE

This procedure applies predominantly to the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generate Biomedical Waste should contact the Faculty of Science, Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

Any Biomedical Waste material found within the grounds of the University must be collected by an individual wearing appropriate personal protective equipment, packaged and disposed of consistent with this Procedure.

8A.2 DEFINITION

Biomedical waste refers to all waste defined as Infectious Waste by the EPA (refer to Appendix B). It includes pharmaceuticals, cytotoxics, tissue samples and laboratory equipment such as petri dishes, pasteur pipettes, pipette tips and gloves.

This Procedure includes used animal litter if the animals that generated the litter were used for testing of microorganisms and/or pharmaceuticals.

This Procedure excludes sharps, animal carcasses and chemical wastes.

8A.3 RESPONSIBILITIES

Heads of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and correct disposal of their wastes as described in these procedures. This will include the correct packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8A.4 HANDLING AND SAFETY

All waste packaging and transport systems must be designed to reduce manual handling of the wastes once deposited into their primary packaging. Such systems must consider waste handlers and the collection/disposal contractors. Systems that reduce the need for manual handling include Mobile Garbage Bins.

8A.4.1 Packaging

1. Biomedical Waste must be packaged in accordance with EPA requirements for transport.
   Plastic bags are to be used for soft tissue or soft waste materials.
   Pails for wastes that contain free-flowing liquids (defined as infectious waste).
   All packaging must be predominantly yellow clearly marked with the biohazard symbol for Infectious Waste or purple clearly marked with the Telophase symbol for Cytotoxic Waste.

2. All non-sharp Biomedical Waste is to be deposited by the generator into a yellow waste container that has been specifically labelled with the words "Contaminated Waste" and the "Biohazard Symbol".

3. Cytotoxic waste packaging must be predominantly purple clearly marked with the telophase symbol.

4. The Biomedical Waste container when full (to the appropriate "fill" mark or no more than three-quarters full for plastic bags) needs to be sealed to prevent the escape of any material and liquids by laboratory staff prior to transport to the designated Biomedical Waste Storage site.

5. Containers and bags must not be overfilled affecting the strength of the bag or container.

6. Waste must be labelled as to the Department of generation.

8A.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Containers and bags must be immediately removed from the laboratory once full and transported to the designated Biomedical Waste storage area (refer Storage Requirements Section 5), prior to collection by the approved biomedical waste collection contractor.

3. Wastes should only be transported in Mobile Garbage Bins to avoid manual handling and to contain any spills should the primary packaging tear/split. If Mobile Garbage Bins are not available, then trolleys must be used. Trolleys used should ensure that any spills will be contained. Under no circumstance should waste bags be carried by hand.

4. Containers and bags must be carried away from the body when lifting into the MGB or onto the trolley.

8A.4.3 Designated Storage Sites

SCHOOL / DEPARTMENT	LOCATION
Agriculture Biochemistry Human Biosciences	Agriculture Yard West end of NW6
Botany Genetics & HV Psychology Zoology	Biological Sciences Courtyard West end of NW3
Central Animal House	Central Animal House
Microbiology	Microbiology Yard South of Thomas Cherry Building

8A.4.4 Documentation

All Biomedical Waste removed from the university by the approved collection contractor must be done only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of biomedical waste must be kept by the School / Department for a minimum of twelve (12) months.

8A.4.5 Disposal

Disposal of Biomedical Waste must be via the waste contractor approved by LaTrobe University.

It is the waste generator's responsibility to ensure that all hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold an EPA permit for the specific waste type(s), and an EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) and this is referred to as a Schedule 4 premise.

8A.4.6 Emergency Response

Accidental spills of Biomedical Waste material must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

8B. HANDLING, TRANSPORT & DISPOSAL OF SHARPS WASTE

8B.1 SCOPE

This procedure applies predominantly to all Sharps Waste collected within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences. Refer to Procedure 8G for details on disposal of glass containers from laboratories.

Any other School or Department who generate Sharps Waste should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

All Sharps Waste material found within the grounds of the University must be collected by an individual wearing appropriate personal protective equipment, packaged and disposed of consistent with this Procedure.

8B.2 DEFINITION

Sharps wastes include needles (capped or uncapped), scalpel blades or any other item that is capable of cutting, piercing or penetrating the skin. This includes items that could cause a waste container to break/split and thus posing risks of injury or exposure to any handlers exposed to the waste contents. Items such as contaminated (ie., infectious or chemical), glass bottles should be considered "Sharps Waste" if there is potential for them to break when deposited into a waste container that contains hazardous waste.

8B.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and proper disposal of their wastes as described in these procedures. This will include the proper packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8B.4 HANDLING AND SAFETY

All waste packaging and transport systems must be designed to totally reduce manual handling of the wastes once deposited into their primary packaging. Such systems must consider waste handlers and the collection/disposal contractors. Systems that reduce the need for manual handling include Mobile Garbage Bins.

8B.4.1 Packaging

1. All Sharp Biomedical Waste material must be deposited by the generator into a yellow sharps container that meets either the Australian Standard AS 4031 (Non Reusable Containers for the Collection of Sharp Medical Items used in Health-Care Areas); or AS 4261 (Reusable Containers for the Collection of Sharp Items used in Human and Animal Applications).

2. Cytotoxic sharps waste containers must be predominantly purple, clearly marked with the telophase symbol and meet either the Australian Standard AS 4031 (Non Reusable Containers for the Collection of Sharp Medical Items used in Health-Care Areas); or AS 4261 (Reusable Containers for the Collection of Sharp Items used in Human and Animal Applications).

3. The Sharps Waste container when full (to the appropriate "fill" mark on sharps containers) needs to be sealed to prevent the escape of any material and/or liquids by laboratory staff prior to transport to the designated Biomedical Waste Storage site.

4. Containers must not be overfilled affecting the strength of the container.

5. Wastes must be labelled as to the Department of generation.

8B.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Sharps containers must be immediately removed from the laboratory once full and transported to the designated Biomedical Waste storage area (refer Storage Requirements Section 5), prior to collection by the approved biomedical waste collection contractor.

3. Sharps waste containers should be transported on trolleys. Trolleys should be designed to ensure that any spills will be contained. However, the transport of individual sharps containers can be by hand, only if the lid is securely fastened and there are carry handles on the container.

4. Containers must be carried away from the body when lifting into the MGB or onto the trolley.

8B.4.3 Designated Storage Sites

SCHOOL / DEPARTMENT	LOCATION
Agriculture Biochemistry Human Biosciences	Agriculture Yard West end of NW6
Botany Genetics & HV Psychology Zoology	Biological Sciences Courtyard West end of NW3
Central Animal House	Central Animal House
Microbiology	Microbiology Yard South of Thomas Cherry Building

8B.4.4 Documentation

All Sharps Waste removed from the university by the approved collection contractor must be done only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of sharps waste must be kept by the School/Department for a minimum of twelve (12) months.

8B.4.5 Disposal

Disposal of Sharps Waste must be via the waste contractor approved by LaTrobe University. It is the waste generator's responsibility to ensure that all sharps wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold an EPA permit for the specific waste type(s), and an EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must only be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) û this is referred to as a Schedule 4 premise.

8B.4.6 Emergency Response

Accidental spills of Sharps Waste material must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated. Spilt sharps waste must not be picked up by hand. Personal wearing appropriate personal protective equipment and using equipment such as tongs must only pick up spilt sharps.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

8C. HANDLING, TRANSPORT & DISPOSAL OF BIOLOGICAL TISSUE RESIDUES, INCLUDING ANIMAL CARCASSES

8C.1 SCOPE

This procedure applies predominantly to all Biological Animal Tissue (including whole carcasses) Waste generated by or within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generates Biological Animal Tissue Waste should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

8C.2 DEFINITION

Biological Animal Tissue waste refers to waste of an animal biological nature, which has the potential to cause harm by acting as a pathological agent while undergoing decomposition. Animal carcasses and carcass limbs are also to be considered as Biological Animal Tissue Waste.

8C.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and proper disposal of their wastes as described in these procedures. This will include the proper packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8C.4 HANDLING AND SAFETY

All waste packaging and transport systems must be designed to reduce manual handling of the wastes once deposited into their primary packaging. Such systems must consider waste handlers and the collection/disposal contractors. Systems that reduce the need for manual handling include Mobile Garbage Bins.

8C.4.1 Packaging

1. Biological Animal Tissue Waste must be packaged in accordance with EPA requirements for transport.
   Plastic bags are to be used for soft tissue or soft waste materials.
   Large and/or heavy Biological Animal Tissue waste must be double-bagged or placed into sealable pails.
   All packaging must be predominantly yellow clearly marked with the biohazard symbol for Infectious Waste.

2. The Biological Animal Tissue Waste container when full (to the appropriate "fill" mark on containers, or no more than three-quarters full for plastic bags) needs to be sealed to prevent the escape of any material and liquids, by laboratory staff prior to transport to the designated Biomedical Waste Storage site.

3. Containers and bags must not be overfilled affecting the strength of the bag or container.

4. It is absolutely essential that all Biological Animal Tissue waste be packaged in such a manner that waste contents will not cause the outer packaging to tear.

5. Wastes must be labelled as to the Department of generation.

8C.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Containers and bags must be immediately removed from the laboratory once full and transported to the designated Biomedical Waste storage area (refer Storage Requirements Section 5), prior to collection by the approved biomedical waste collection contractor. Advice should be sought from the Occupational Health and Safety Section for packaging/disposal of large carcasses.

3. Wastes should only be transported in Mobile Garbage Bins to avoid manual handling and to contain any spills should the primary packaging tear/split. If Mobile Garbage Bins are not available, then trolleys must be used. Trolleys should be designed to ensure that any spills will be contained. Under no circumstance should waste bags be carried by hand to storage/disposal area.

4. Containers must be carried away from the body when lifting into the MGB or onto the trolley.

8C.4.3 Storage

If Biological Animal Tissue waste is to be stored within School/Department prior to external transport, the waste must be stored in a specially designated freezer which maintains a temperature of less than zero degrees Celsius.

Designated Storage Sites are:

SCHOOL / DEPARTMENT	LOCATION
Agriculture Biochemistry Human Biosciences	Agriculture Yard West end of NW6
Botany Genetics & HV Psychology Zoology	Biological Sciences Courtyard West end of NW3
Central Animal House	Central Animal House
Microbiology	Microbiology Yard South of Thomas Cherry Building

8C.4.4 Documentation

All Biological Animal Tissue Waste removed from the university by the approved collection contractor must be done only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of Biological Animal Tissue waste must be kept by the School/Department for a minimum of twelve (12) months.

8C.4.5 Disposal

Disposal of Biological Animal Tissue Waste must be via the Biomedical Waste contractor approved by LaTrobe University.

It is the waste generator's responsibility to ensure that all hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold an EPA permit for the specific waste type(s) and an EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) û this is referred to as a Schedule 4 premise.

8C.4.6 Emergency Response

Accidental spills of Biological Animal Tissue Waste material must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

8D. HANDLING, TRANSPORT & DISPOSAL OF LOW LEVEL RADIOACTIVE WASTE

8D.1 SCOPE

This procedure applies predominantly to all Low Level Radioactive Waste generated by or within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generates Low Level Radioactive Waste should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

8D.2 DEFINITION

Low Level Radioactive waste refers to all waste that because of their radioactive content may require specific management procedures. Human Services Victoria is the responsible government agency for management of Low Level Radioactive wastes. Reference should be made to the University's Occupational Health and Safety Section for advice on classifying Low Level Radioactive waste.

8D.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate low level radioactive wastes are responsible for the safe and correct disposal of their wastes as described in these procedures. This will include the correct packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8D.4 HANDLING AND SAFETY

Contact the Occupational Health and Safety Department for clarification of any issues in relation to the use and management of Low Level Radioactive wastes.

Liquid radioactive waste which is aqueous based may be discharged directly to the sewerage system provided there are no other hazards (eg. biological or chemical) present. The maximum allowable discharge concentrations for each radioisotope are set by regulations and the Occupational Health and Safety Section can provide information on those limits upon request.

All Low Level Radioactive waste storage packaging and transport systems must be designed to minimise manual handling of the wastes once deposited into their primary packaging and reduce any exposure to radioactive material. Such systems must consider waste handlers and the collection/disposal contractors.

Storage sites for Low Level radioactive wastes within laboratories must be clearly marked with the "Trefoil" symbol and secured so that only authorised personnel have access.

8D.4.1 Packaging

1. All containers must clearly identify the radioisotopes present and the activity, packing or reference date, generating department and any other property of the waste, such as solvent, glass vials, liquid, flammable.

2. The surface dose rate of each bag must not exceed 5 microsieverts per hour and the total activity of each bag must not exceed:

for radioisotopes having a half-life of 1 year or greater	0.1	ALI*
for radioisotopes having a half-life between 60 days and 1 year	1	ALI*
for radioisotopes having a half-life of 60 days or less	10	ALI*

   * Annual Limit of Intake

3. Solid waste must be packaged in accordance with contractor requirements for transport. Appropriate bags are red plastic bags or multi-walled paper bags approved by the Occupational Health and Safety Section.

4. It is the responsibility of the waste generator to ensure that all Low Level Radioactive wastes are placed into the appropriate container and that the container is sealed.

5. Liquid based Low Level Radioactive wastes must only be deposited into sealable drums or containers.

6. Containers / bags must not be overfilled.

8D.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Specially labelled Mobile Garbage Bins (MGB) must only be used for the transport of Low Level Radioactive wastes to the Radiation Waste Store. Low Level Radioactive waste must be segregated within the store according to the type of waste and half-life. Wastes should not be deposited into the store without the express permission of the University Radiation Safety Officer.

3. Containers must be carried away from the body when lifting into the MGB or onto the trolley.

8D.4.3 Storage

The designated Radiation Waste Storage Site is located in Room 150, Physical Sciences 4 Building. Access to the Store is from the East End of the Building.

8D.4.4 Documentation

All Low Level Radioactive Wastes can only be removed from the university following a declaration by the University's Radiation Safety Officer that the wastes have degraded to levels required by the Code of Practice for the Safe Transport of Radioactive Substances 1990.

All documentation for the disposal of low level radioactive wastes must be kept for a minimum of twelve (12) months.

8D.4.5 Disposal

Low Level Radioactive Wastes must not be disposed of unless the wastes have degraded to levels consistent with the Code of Practice for the Safe Transport of Radioactive Substances 1990.

Disposal of Low Level Radioactive Waste must be via the waste contractor approved by LaTrobe University.

It is the waste generator's responsibility to ensure that all hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Radioactive wastes must only be transported in vehicles that are approved for this purpose, and use of all documentation is essential. The waste(s) must only be disposed of to a site that has been specifically licenced by the EPA for the particular waste(s).

8D.4.6 Emergency Response

Accidental spills of Low Level Radioactive Waste material must be notified immediately to the School Laboratory Manager and Radiation Safety Officer. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

An emergency response plan for radioactive waste spills is attached in Appendix A.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)
University Radiation Safety Officer	9479 2186 (Gary Nolan)

8E. HANDLING, TRANSPORT & DISPOSAL OF SOLID CHEMICAL WASTE

8E.1 SCOPE

This procedure applies predominantly to all Solid Chemical Waste generated by or within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generates Solid Chemical Waste should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

8E.2 DEFINITION

Solid Chemical Waste refers to any waste of a chemical nature that has the potential to pose a chemical threat to health, safety and/or the environment, or is chemically hazardous. This waste category includes all those wastes listed in the EPA's Prescribed Waste Regulations (refer to Appendix B), other than those that a specific Procedure has been written for.

8E.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and correct disposal of their wastes as described in these procedures. This will include the correct packaging, labelling and transport of waste to the appropriate collection point.
The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8E.4 HANDLING AND SAFETY

All waste packaging and transport systems for chemical wastes, must be designed to reduce manual handling of the wastes once deposited into their primary packaging and to prevent spills. Such systems must consider waste handlers and the collection/disposal contractors. Systems that reduce the need for manual handling during internal transport of the waste to the designated storage site, include Mobile Garbage Bins.

Chemical wastes must not be disposed of to sewer unless specific permission has been obtained from the Laboratory Manager.

8E.4.1 Packaging

1. All waste must be identified as to its specific class. No wastes are to be disposed of unless the container is clearly marked as to the hazard class of the material inside. All labels from other material that were contained in the packaging must be obliterated.

2. Labels for chemical waste containers must include:
   A description of the constituents of the waste;
   Appropriate dangerous goods class and subsidiary risk labels;
   Department of origin; and
   Container identification number.

3. All solid chemical wastes must only be placed into containers that will not allow the contents to spill out. Containers must be able to be sealed and contain contents in the event of the container being knocked over.

4. Containers must not be overfilled.

5. The Occupational Health and Safety Section must be notified should a container of chemical waste not have any identifying labels on it. This Department will arrange identification of the material and appropriate disposal of the chemical waste.

8E.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Solid waste containers must be immediately removed from the laboratory once full and transported to the designated Chemical Waste storage area (refer Storage Requirements Section 5), prior to collection by the approved chemical waste collection contractor.

3. Wastes should only be transported in such a manner to avoid manual handling and to contain any spills should the primary packaging tear/split. Trolleys should be designed to ensure that any spills will be contained. Under no circumstance should waste containers be carried by hand to storage/disposal area.

4. Containers must be carried away from the body when lifting onto the trolley.

5. Chemical wastes should not be transported with other waste types.

6. Chemical wastes should be transported directly to the designated chemical storage area.

8E.4.3 Storage

The designated storage and collection point is the Waste Store in the Chemistry Courtyard, rear of Physical Sciences 3 Building.

8E.4.4 Documentation

All Laboratories/Departments to keep records of the chemical, class, amount and date Chemical Waste is transported to the Chemical Waste Storage Area.

The approved collection contractor may remove chemical wastes from the university only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of chemical waste must be kept by the School/Department for a minimum of twelve (12) months.

8E.4.5 Disposal

Disposal of Chemical Waste must be via the waste contractor approved by LaTrobe University.

The Occupational Health and Safety Section to assume responsibility for arranging chemical waste collections.

It is the waste generator's responsibility to ensure that all hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold an EPA permit for the specific waste type(s), and an EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) û this is referred to as a Schedule 4 premise.

8E.4.6 Emergency Response

Accidental spills of Chemical Waste material must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

8F. HANDLING, TRANSPORT & DISPOSAL OF LIQUID CHEMICAL WASTE

8F.1 SCOPE

This procedure applies predominantly to all Liquid Chemical Waste generated by or within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generates Liquid Chemical Waste should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

8F.2 DEFINITION

Liquid Chemical Waste refers to any liquid waste of a chemical nature that has the potential to pose a chemical threat to health, safety and/or the environment, or is chemically hazardous. Containers with liquid chemical residues are considered Prescribed Waste.

This waste category includes all those wastes listed in the EPA's Prescribed Waste Regulations (refer to Appendix B), other than those that a specific Procedure has been written for.

8F.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and proper disposal of their wastes as described in these procedures. This will include the proper packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8F.4 HANDLING AND SAFETY

1. All waste packaging and transport systems for chemical wastes, must be designed to reduce manual handling of the wastes once deposited into their primary packaging and to prevent spills. Such systems must consider waste handlers and the collection/disposal contractors.
   Systems that reduce the need for manual handling include Mobile Garbage Bins.

2. Liquid chemical wastes must not be disposed of to sewer unless specific permission has been obtained from the Laboratory Manager.

8F.4.1 Packaging

1. All waste must be identified as to their specific class. No wastes are to be disposed of unless the container is clearly marked as to the hazard class of the material inside. Any labels from other material that was originally contained on the packaging, must be obliterated.

2. Labels for chemical waste containers must include:
   A description of the constituents of the waste;
   Appropriate dangerous goods class and subsidiary risk labels;
   Department of origin; and
   Container identification number.

3. All liquid chemical wastes must only be placed into containers that will not allow the contents to spill out. Containers must be able to be sealed and contain contents in the event of the container being knocked over.

4. Containers must not be overfilled.

5. The Occupational Health and Safety Section must be notified should a container of chemical waste not have any identifying labels on it. This Section will arrange appropriate disposal of the chemical waste.

8F.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. Liquid waste containers must be immediately removed from the laboratory once full and transported to the designated Chemical Waste storage area (refer Storage Requirements Section 5), prior to collection by the approved chemical waste collection contractor.

3. Wastes should only be transported in such a manner to avoid manual handling and to contain any spills should the primary packaging tear, split or break. Trolleys used should be designed to ensure any spills will be contained. Under no circumstance should waste containers be carried by hand.

4. Containers must be carried away from the body when lifting onto the trolley.

5. Liquid chemical wastes should not be transported with other waste types.

6. Liquid chemical wastes are to be transported directly to the designated chemical storage area.

8F.4.3 Storage

The designated storage and collection point is the Waste Store in the Chemistry Courtyard, rear of Physical Sciences 3 Building. All liquid chemical wastes must be deposited into the appropriate section of the Chemical Waste Storage area.

Under no circumstances should any liquid chemical wastes be deposited into an area designated for a different hazard class or outside a bunded area.

8F.4.4 Documentation

All Laboratories/Departments to keep records of the chemical, class, amount and date liquid chemical waste is transported to the Chemical Waste Storage Area.

Liquid chemical wastes may only be removed from the university by the approved collection contractor, and must be done only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of liquid chemical waste must be kept by the School/Department for a minimum of twelve (12) months.

8F.4.5 Disposal

Disposal of liquid chemical waste must be via the waste contractor approved by LaTrobe University.

The Occupational Health and Safety Section to assume responsibility for arranging chemical waste collections.

It is the waste generator's responsibility to ensure that all hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold an EPA permit for the specific waste type(s), and an EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must only be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) û this is referred to as a Schedule 4 premise.

8F.4.6 Emergency Response

Accidental spills of liquid Chemical Waste material must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

Immediate actions must be taken to prevent liquid spills from entering any drains.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

8G. DISPOSAL OF GLASS CONTAINERS FROM LABORATORIES

8G.1 SCOPE

This procedure applies predominantly to all Glass (or similar) Containers, that contained hazardous materials, generated by or within the Faculty of Science, Technology and Engineering and the Faculty of Health Sciences.

Any other School or Department who generate Glass (or similar) Containers should contact the Faculty of Science and Technology to arrange disposal or should seek advice from the University's Occupational Health and Safety Section.

8G.2 DEFINITION

Glass (or similar) Containers refers to all glassware or similar laboratory equipment which have been contaminated with infectious or chemical substances.

This Procedure does not apply to broken containers or laboratory equipment, which are contaminated with infectious substances (as defined in Appendix B) or chemicals. These should be managed as sharps waste (refer Procedure 8B).

This Procedure also does not apply, to containers that contained radioactive substances. These should be managed as radioactive waste (refer Procedure 8D).

8G.3 RESPONSIBILITIES

Head of Schools are responsible for ensuring that these procedures are followed within their area of management and control.

Laboratory Managers are responsible for co-ordinating waste removal and disposal within their School.

Students and Employees who generate hazardous wastes are responsible for the safe and proper disposal of their wastes as described in these procedures. This will include the proper packaging, labelling and transport of waste to the appropriate collection point.

The Occupational Health and Safety Section is responsible for regularly reviewing these procedures and incorporating any changes to legislation.

8G.4 HANDLING AND SAFETY

A system that avoids the need for manual handling of these containers must be utilised. The risk to handlers, should containers break, will be avoided with the transport of these containers by a Trolley. Personal Protective Equipment such as gloves, safety glasses and laboratory coats must be worn when rinsing all chemical containers.

Under no circumstances should any containers or laboratory equipment be deposited into the general waste stream unless the container has been triple-rinsed and any chemical labels obliterated.

8G.4.1 Classifying Containers

1. All Empty Glass (or similar) Containers that have not been triple-rinsed must be disposed of as a hazardous waste.

2. All containers classified as hazardous waste (unrinsed) must be transported to the Central Chemical Collection Area and stored in the designated area.

3. All waste containers must be labelled as to the Department of generation.

4. To be able to classify the container as a non-hazardous waste, the following triple-rinsing procedure must be followed:
   Ensure the container has been emptied.
   Fill the container with approximately 25% clean water and replace the cap.
   Shake, rotate roll or invert the container vigorously for at least 30 seconds.
   Drain the container into a designated storage vessel.
   Repeat until the container has been rinsed three times.
   The waste water in the designated storage vessel must be disposed of as liquid chemical wastes (refer to Section 8F).

5. Once the container has been triple-rinsed to the above criteria, all labels must be removed or rendered unreadable, then it may be disposed of via the recycling or general waste stream.

6. Pyrex (and similar) containers cannot be recycled and must be disposed of via the general waste stream (if triple-rinsed). If there is potential for any person to be injured, the items must either be managed as sharps waste or securely packaged to prevent injury.

7. All triple rinsed glass chemical containers must have labels obliterated.

8G.4.2 Internal Transport

1. The person conducting the internal transport of this waste must wear appropriate PPE.

2. All Hazardous Waste Glass (or similar) Containers should be stored in a secure place within each laboratory until requiring transport to the Central Chemical Collection Area.

3. Wastes should only be transported on trolleys to avoid manual handling and to prevent containers being dropped. Trolleys should be designed to ensure that any broken materials/spill will be contained. Under no circumstance should Glass (or similar) Containers be carried by hand.

4. Containers must be carried away from the body when lifting onto the trolley.

8G.4.3 Storage

Unrinsed Glass (or similar) Containers that are to be collected by the University's designated contractor (eg., for Winchesters) must be transported to the chemical collection area and stored in the designated area. Under no circumstances should containers be stored in a manner that could result in injury to staff.

It is the responsibility of all staff to report to Occupational Health and Safety if unsafe storage conditions are observed.

8G.4.4 Documentation

Records of quantities generated and disposal routes, should be maintained by all departments generating waste Glass Containers. All Glass (or similar) Containers, that contained hazardous substances and have not been triple-rinsed, are to be removed from the university by the approved collection contractor must be done only after completion of the appropriate EPA transport documentation ie, Prescribed Waste Transport Certificate or Accredited Agent form.

All documentation regarding the disposal of Glass (or similar) Containers waste must be kept by the School/Department for a minimum of twelve (12) months.

8G.4.5 Disposal

Disposal of recyclable empty Glass Containers must be disposed of via the recycling/waste contractor approved by LaTrobe University.

Glass (or similar) Containers designated as sharps waste must be disposed of via the biomedical waste contractor approved by LaTrobe University.

Glass (or similar) Containers deposited into the general waste containers will be collected by the designated general waste contractor.

It is the waste generator's responsibility to ensure that all glass containers designated as hazardous wastes are labelled, packaged, transported and disposed of in accord with all regulations. Hazardous wastes must only be transported in vehicles that hold a permit from the EPA for the specific waste type(s). An EPA Transport Certificate must be correctly completed, or an Accredited Agent Certificate if allowed for the waste type. The waste(s) must only be transported to a disposal site that has been specifically licenced by the EPA for the particular waste(s) û this is referred to as a Schedule 4 premise.

8G.4.6 Emergency Response

Accidental breakages of Glass (or similar) Containers must be notified immediately to the School Laboratory Manager. If the School Laboratory Manager cannot be notified personally, LaTrobe University Occupational Health and Safety Section or Central Control must be notified. Appropriate actions will then be communicated.

Occupational Health and Safety Section	9479 2186 or 9479 1186
Central Control	9479 2012 or 9479 2222 (24 hours)

9. PROTOCOLS FOR THE AUTOCLAVING AND DISPOSAL OF BIOMEDICAL WASTE

This section is to be completed by LaTrobe University following advice from the Environment Protection Authority and acceptance by the EPA of the management strategy.

10. HAZARDOUS WASTE MANAGEMENT INFORMATION

The management (packaging, storing, off-site transport and disposal), of hazardous waste generated at LaTrobe University is governed by several pieces of legislation/regulations as well as guidelines and standards. The primary purpose of these is to ensure that the disposal of hazardous wastes does not create further environmental impacts as well as protecting the health and safety of staff and students handling the wastes (and the general community).

Following is a brief summary of applicable legislation and regulations:

Occupational Health and Safety Act 1985
Dangerous Goods Act 1985
Dangerous Goods (Storage and Handling) Regulations 1989
Dangerous Goods (Transport) Regulations 1987
Road Transport Dangerous Goods Act 1995
Environmental Protection Act 1970
Environmental Protection (Scheduled Premises and Exemptions) Regulations 1984
Environmental Protection (Prescribed Waste) Regulations 1987
Environmental Protection (Transport) Regulations 1987
Industrial Waste Management Policy (Waste Minimisation) 1990
State Environment Protection Policy (Siting and Management of Landfills Receiving Municipal Wastes) 1991
Health Radiation Safety Act 1984
Health (Radiation Safety) Regulations 1994
Australian Code for the Transport of Dangerous Goods by Road and Rail

In addition, the agencies responsible for managing hazardous wastes have published the following guidelines and standards to assist waste generators in meeting their responsibilities:

Human Services, Radiation Safety Section: Code of Practice for the Safe Transport of Radioactive Substances, 1990
Environment Protection Authority, Publication 448: Information Bulletin - Classification of Wastes, 1995
Environment Protection Authority, Publication 388: Information Bulletin - Industrial Waste Strategy: Responsibilities for Industrial Waste Management, 1996
Environment Protection Authority, Publication 395: Information Bulletin - Industrial Waste Strategy: Instructions for Completion of Waste Transport Certificates, 1996
Environment Protection Authority, Publication 423: Information Bulletin - List of Treatment and Disposal Facilities for Prescribed Waste, 1997
Environment Protection Authority, Publication 344: Information Bulletin - Transport and Disposal of Empty Drums Containing Hazardous Compounds, 1996
Environment Protection Authority, Publication 348: Information Bulletin - Biomedical Waste Storage Sites, 1993
Environment Protection Authority, Publication 358: Information Bulletin - Industrial Waste Minimisation, Procedures for Waste Assessments, 1993
Environment Protection Authority, Publication 416: Information Bulletin - Dangerous Goods Requirements for the Transport of Prescribed Waste, 1997
Work Safe Australia: Control of Workplace Hazardous Substances, 1994

Attached are the applicable Hazardous Waste Management Bulletins issued by the Victorian Environment Protection Authority.

11. CONTACT DETAILS

LA TROBE UNIVERSITY

School/Department	Contact	Telephone
Occupational Health and Safety	Gary Nolan	9479 2186
Radiation Safety Officer		9479 2186
Central Control		9479 2012
Emergency		9479 2222

GOVERNMENT

Organisation	Contact	Telephone
Environment Protection Authority	Switchboard	9628 5533
Melbourne Water	Switchboard	9235 7100
Workcover	Switchboard	9641 1555
Health Department (Radioactive)	Alan Melbourne	9637 4167

CONTRACTORS

Company	Contact	Telephone
Chemsal	Geoff Glew	9369 4222
Cleanaway	Marina Del Pozzo	0419 567 563
Waste Audit and Consultancy	Pam Keating	9877 9960
		0418 397 375

12. GLOSSARY

The definitions included in the Manual, have been sourced from:

- Standards Australia - Draft Glossary of Terms
- Relevant Industry Association Definitions
- Victorian Environment Protection Authority

TERM	DEFINITION
Biomedical Waste	Bio-medical wastes refers to a complex and varying mixture of materials with a broad range of properties. There are three sub categories of bio-medical waste - Infectious Waste Substances - Cytotoxic Wastes - Pharmaceutical Wastes
Disposal	Final stage in the management of the waste stream to minimise environmental impact.
General Waste	Assorted waste materials put into the recycling stream, usually characterised by being contained in plastic "garbage" bags. There may or may not be recyclable materials in the bag.
Hazardous waste	Component of the waste stream which poses a danger to humans, the environment, equipment and physical structures. NOTE: It includes toxic, infectious, mutagenic, carcinogenic, teratogenic, explosive, flammable, corrosive, oxidising and radioactive substances.
Landfill	Land used for the burial of waste.
Prescribed waste	Wastes prescribed in the Environment Protection (Prescribed Wastes) Regulations 1987.
Recycled materials	Materials recovered and manufactured into new products of the same general type (which may be manufactured from virgin and recycled materials). NOTE: Recycled materials are used in lieu of primary materials.
Recycle/recycling	Set of processes (including biological) for converting recovered materials that would otherwise be disposed of as wastes, into useful materials and or products. The following definitions apply: (a) Closed loop recycling: recycling process in which the reclaimed output is used as an input to the same or similar product system.

	(b) Open loop recycling: recycling process in which the reclaimed output is used as an input to another product system. NOTE: The term is often incorrectly taken to include reprocessing and reusing. The differences between recycling, reprocessing and reusing should be noted.
Waste	Materials and energy which have no further use and are released to the environment as a means of disposal.
Waste audit	System to identify and categorise materials in a waste stream.
Waste generator	Any person or organisation that consumes goods and services resulting in addition to the waste stream.
Waste management	Entire process of monitoring process of monitoring, collecting, sorting, storing and transporting for processing and reclamation of materials and energy resources and disposal of waste.
Waste minimisation	Application of activities such as waste reduction, re-use and recycling and behaviour modification to minimise the amount of waste that requires disposal.
Waste reduction	Limitation of waste through product design, material selection, policy and management strategy.