

# Appendix 14

## Waste Management – Vertebrate Laboratory Animals, Biological Materials, and Contaminated Sharps



## **Disposal of Vertebrate Laboratory Animals**

Dead animals are identified, removed from the cage, placed in plastic bags or wrapped in newspaper and the investigator notified. The animals are frozen until disposal is scheduled. When bulk disposal is scheduled, the dead animal tissue is placed in the bins provided by the waste service. Disposal is by steam sterilisation and deep burial by InterWaste Ltd.

## **Disposal of other Biological Materials**

All biological material used within the facility will be decontaminated before disposal, or incinerated. Decontamination will be either by autoclaving at 121°C for an appropriate length of time; by steam sterilisation and deep burial by an approved company, InterWaste Ltd; or if appropriate, by chemical disinfection. Autoclaving renders biohazardous waste into general refuse. In practice, however, disposal of hazardous materials using the approved medical waste service is generally used.

All biological waste for disposal will be transported to the autoclave double-sealed in an unbreakable, closed container. After autoclaving these containers are taken to the Biohazard Area on Level B for removal.

Chemical disinfection should be used for spillages (Appendix 18 of this manual) and may also be used for disinfection of liquid wastes (e.g. culture supernatants where cells have been removed by centrifugation or filtration; buffer solutions, etc.) containing low levels of biological contamination. Chemical disinfection should not be used as the only method of decontamination for microbiological cultures or cell lines, etc.

Biohazardous waste that is not suitable for autoclaving or chemical disinfection is placed in a biohazard bag and sealed. These bags are then placed in the appropriate container, which is placed in the Biohazard Area on Level B. The company then removes these from the site and subjects the material to high temperatures.

Where appropriate, liquid biohazardous waste is either treated with a sterilising agent, e.g. Virkon or bleach, or autoclaved for 20 minutes (or longer if required) at 121°C then placed into the sewage system.

## **Disposal of Contaminated Sharp Wastes**

All contaminated disposable sharp wastes (glass pipettes, needles, syringes, scalpel blades, etc.) are discarded into suitable safe disposal containers, which will not expose other people (university or non-university) to unreasonable risk of accident. Suitable containers are tough walled, will not spill their contents if accidentally tipped over, and can be reliably sealed before disposal. These containers are removed by an approved operator, currently InterWaste Ltd, for high-temperature incineration.

The effectiveness of the autoclave process is monitored regularly and records are kept for seven years. Records are kept by the Sector Manager.

No viable microorganisms, animal cell cultures or uncleared biological products are removed from the facility, except with approval from the MPI Biosecurity Inspector.