



Animal Bedding Disposal



It is the responsibility of **Facility Managers** to ensure waste has been correctly classified and lab personnel follow the proper protocols. **Veterinarians** are asked to adjudicate clinical illness of animals held in the facility and verify the protocols relative to the health status.

Purpose

This protocol specifies the requirements for the proper disposal of animal bedding waste to ensure compliance with all applicable legislation. This procedure seeks to limit the animal bedding waste that must be disposed of as biomedical waste as defined in regulation.

Scope

Waste Application & Regulations

The protocol applies to animal bedding waste, generated from animal facilities and laboratories at UBC Point Grey campus. The animal bedding waste for disposal may include: non-contaminated beddings, beddings contaminated with Risk Group 1 and Risk Group 2 Biohazards, and bedding contaminated with toxic substances.

All animal beddings are considered **biomedical waste** as defined by the BC Hazardous Waste Regulation, unless a “*medical or infection control professional has certified that the waste does not contain a virus or agent listed in Risk Group 2, 3 or 4*”. Other regulatory restrictions also apply. The protocol is based on the following regulations:

1. BC Hazardous Waste Regulation (definitions)
 - Part 1- Biomedical Waste (b), (d), (g) (i) and (p)
 - Part 1- Hazardous Waste (a) (i), (ii) and (b.1)
2. Transportation of Dangerous Goods (TDG) regulations Part 2.31
3. Metro Vancouver Tipping Fee Solid Waste Regulation Bylaw

Certification Required

- Regular risk assessments are required (minimum once per year). Facility managers and veterinarians must conduct a joint review of facility procedures for effectively treating bedding waste and correctly classifying and certifying animal bedding prior to disposal.
- Each load of bedding generated and disposed as solid waste must be non-biohazardous – per sample log.
- Animal facilities **MUST** submit annual declarations “*UBC Animal Bedding Disposal Declaration*” at the beginning of each calendar year and/or when changes occur – per sample letter.
- Records must be kept on file for a minimum of 2 years.

Does Not Apply

This disposal procedure does NOT apply to the following wastes, covered by different procedures:

- Animal Carcasses
- Biomedical Waste & Biohazardous Waste



Contact the **SRS Advisors**, *Environmental Protection and Biological & Radiation Safety* for risk assessments or review of relevant permits and protocols.



Background

Large quantities of animal bedding waste (e.g. collected in waste compactors) are not accepted for disposal via Metro Vancouver’s regular landfills. This type of waste falls under Metro Vancouver’s Disposal Ban Program – Banned Hazardous and Operational Impact Materials. While small quantities (e.g. small bags) of animal beddings waste may be disposed via local landfills, this is not a recommended best practice, as certain landfill restrictions may result in a refusal to accept this bedding waste.

Animal bedding waste generated at the Point Grey campus is currently disposed of either via a designated Lower Mainland composting facility or via the Waste-to-Energy Facility in Burnaby – these disposal methods require pre-approval and could change at any time.

Bedding generated by facilities which require Canadian Food Inspection Agency (CFIA) import permits and/or quarantine animals under the Health of Animals Act may be restricted for disposal – e.g. approved disposal methods are incineration or burial at a site approved by the CFIA for international waste or disposal as biomedical waste.

Procedure



Contact UBC Waste Management for disposal as solid waste, including bedding bin pick-up schedule.

A. Uncontaminated Beddings

- ✓ Complete and sign the certification log – can be treated as solid waste (regular garbage).
- ✓ Collect bedding waste into a specially designated bin at each facility (if available).

B. Risk Group 1 (RG1) Contaminated Beddings

- ✓ Autoclave bedding contaminated with Risk Group 1 agents prior to disposal – this is a best practice and not a mandatory requirement if Risk Group 2 bedding is effectively segregated.
- ✓ Complete and sign the certification log – can be treated as solid waste (regular garbage).
- ✓ Collect bedding waste into a specially designated bin at each facility (if available).

C. Risk Group 2 (RG2) Contaminated Beddings

- ✓ Autoclave all bedding contaminated with Risk Group 2 agents prior to disposal.
 - Perform routine quality assurance testing (i.e. using both chemical and biological indicators) to ensure/demonstrate autoclave efficiency and keep all records - as required by most recent Canadian Biosafety Standards and Guidelines, published by the Public Health Agency of Canada.
 - Refer to the “Biohazardous Waste” disposal procedure for additional details.
- ✓ Complete and sign the certification log for autoclaved bedding and then dispose as solid waste.
- ✓ Collect bedding waste into a specially designated bin at each facility (if available).
 - Bedding can be treated/disposed as solid waste, ONLY after managers and area supervisors have certified the autoclaved waste.



Contact the SRS Environmental Services Facility (ESF) if bedding cannot be autoclaved; and to arrange for bedding disposal as hazardous waste.



D. Toxic Substances Contaminated Beddings

- ✓ Inform ESF and make special disposal arrangements if bedding is considered toxic waste.
- ✓ Review the product Safety Data Sheet (SDS). Implement the following calculation if:
 - The chemical or drug is listed as a TDG class 6.1 substance (toxic); AND
 - The chemical or drug LD₅₀ is ≤ 1000 mg/kg
 - Note: 1000 mg/kg is the toxic limit as per TDG Regulation sec. 2.31
- ✓ Assess the level of chemical contamination (e.g. pharmaceutical drugs or cytotoxics):
 - Find the chemical's LD₅₀ value in the SDS
 - Estimate the total weight of the chemicals in the bedding (mixture of substances)
 - Estimate the total weight of the beddings batch to be disposed
 - Calculate the LD₅₀ value of the mixture of substances with the following equation:

$$LD_{50} \text{ (mixture)} = \frac{LD_{50} \text{ (chemical)}}{\text{mass fraction of chemical in bedding}}$$

- Calculation hints*: Mass fraction is the weight of chemicals (g or kg) divided by weight of bedding (g or kg). Use the same units.
- **Example: 10g cytotoxic chemicals / 1,000g bedding = 0.01 (mass fraction) = 1% chemical concentration in bedding*
- ✓ Dispose as solid waste if the resulting LD₅₀ > 1000 mg/kg, as the mixture is not considered toxic waste (TDG class 6.1)
- ✓ Dispose as hazardous (chemical) waste via ESF if the resulting LD₅₀ ≤ 1000 mg/kg, as the mixture should be treated as toxic waste.
- ✓ In order to be accepted, the detailed toxic waste calculation must be submitted to SRS as part of the request for disposal approval.

NOTE: Please submit sample calculations (non-toxic bedding waste) annually to UBC Safety & Risk Services and keep all copies for your records.



SAMPLE Bedding Certification Log

[Insert FACILITY NAME] - Non-Contaminated Bedding Certification Log

I _____
(add your name & position, print clearly) certify that the bedding disposed per description below contained no Risk Group 2, 3, or 4 virus or agent.

Date of Disposal	Waste Description	Estimated Weight	Facility Manager or Area Supervisor Initials

NOTE: Please submit logs annually to UBC Safety & Risk Services and keep all copies for your records.



UBC Animal Bedding Waste Declaration YEAR

FACILITY NAME (BUILDING): _____

MM/DD/YYYY

To UBC Safety & Risk Services & “Current Non-UBC Waste Disposal Facility”

This document certifies that the ADD YOUR FACILITY NAME is disposing of **Animal Bedding Waste** at the University of British Columbia Point Grey campus, and that controls are implemented to ensure that every load meets the following conditions:

1. The load of soiled animal bedding originates ONLY from the UBC facility indicated above.
2. The animal bedding waste has been assessed according to the UBC Animal Bedding Disposal Protocol - all certification logs and relevant calculations are kept on file for minimum 2 years.
3. The animal bedding does NOT contain any radioactive materials.
4. As per requirements of the BC Hazardous Waste Regulation, the animal bedding waste does NOT contain a virus or agent listed in Risk Group 2, 3 or 4, as defined in the federal transportation of dangerous goods regulations.
5. The animal bedding load is NOT considered hazardous toxic waste, class 6.1, as defined in the federal transportation of dangerous goods regulations.
6. The animal bedding may be disposed as INTERNATIONAL WASTE as approved by the Canadian Food Inspection Agency (CFIA). As required by CFIA animal import permits, all animals have tested negative for potential diseases of concern associated with the imported animal species, prior to entering Canada from the country of origin. *[IF APPLICABLE – note that if bedding is autoclaved this will not be applicable]*

In signing this, signatories attest that to the best of their knowledge and efforts all of the above conditions have been met.

Signature of Veterinarian

Signature of Facility Manager

Name:
 Job Title: Clinical Veterinarian
 Facility:
 Building (if applicable):
 Address:
 Work Phone:
 Email:

Name:
 Job Title:
 Facility:
 Building (if applicable):
 Address:
 Work Phone:
 Email:

NOTE: Please submit to UBC Safety & Risk Services & Waste Management and keep a copy for your records. Additional declarations may be required during a calendar year if there are any changes to the bedding waste and/or disposal facility.



Bedding Disposal Decision Making Chart

