

Title: Spill cleanup for material derived from GM aquatic organisms

Purpose: To provide step-by-step instructions for the clean-up of biological spills involving materials derived from genetically modified (GM) aquatic organisms, including water spills that may contain GM eggs, larvae or fry.

Research groups are responsible for the preparation of Safe Operating Procedures (SOPs) and Risk Assessments for their own work.

Spills cleanup

1. Move away from the spill, warning others around you to keep out of the area of the spill.
2. Capture any fish present and either return to containment or euthanise following the AEC-approved euthanasia procedures.
3. Collect spill cleanup equipment (see 'Planning for control of spills' for a list of spill kit requirements). Make fresh Pyroneg solution (4 g/L water).
4. Before entering the spill area, put on a long-sleeved laboratory gown.
5. Assess the extent of contamination, including any areas where splashes may have landed.
6. Remove any sharp objects in the spill area using forceps or tweezers and discard in a sharps container.
7. Starting from the outside edge of the spill, use a mop and bucket with Pyroneg solution to mop towards the centre of the spill.
8. Dispose of mop water via the laboratory sink, pouring through a sieve placed over the sink to capture any GM material. If any live larvae or fry are present, follow AEC-approved euthanasia procedure.
9. Make fresh solution of Pyroneg and mop floor again. Rinse mop well in the bucket. Dispose of mop water via the laboratory sink, pouring through a sieve placed over the sink.
10. Dispose of any material from the sieve and any euthanised fish, larvae, or fry into a biohazard waste bag. Seal bag and dispose into clinical waste bin.
11. Remove gown and send to laundry services.
12. Wash hands with soap and water.
13. Notify the Chief Investigator, the IBC and the AEC about the incident and confirm that spill cleanup is complete.

Planning for control of spills before they happen

1	Ensure that everyone working in the facility is aware of and familiar with these procedures.
2	Ensure that a copy of the spill clean-up poster is printed and available in the facility.
3	<p>Have a biological spills clean-up kit available. This doesn't have to be a commercial kit – often making your own is a better option to make sure that the right items are available. Remember that chemical spill kits are different to biological spill kits.</p> <p>A good biological spills clean-up kit should include the following items:</p> <ul style="list-style-type: none"> • Forceps or tweezers to pick up any sharps • Laboratory gown • Absorbent material – e.g., paper towel, or lab absorbent pads • Pyroneg powder (undiluted, and within expiry date) • Biohazard waste bags • Mop and bucket • Fine mesh sieve, large enough to sit over laboratory sink for draining discard water.
4	Have a contact list for trained staff who are available to assist with spills clean-up if required – technical officers, IBC research compliance officers, etc.

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Legislation, Guidelines and Standards:

- Gene Technology Act 2000
- OGTR Guidelines for Certification of PC2 Laboratories/ Aquatic Facilities

This guidance document is supplied to specify requirements under relevant legislation, guidelines and standards relating to the compliant handling of regulated biological materials including but not limited to GMOs, microorganisms and samples/organisms containing these.

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