

## **Emergency Response Plan for Containment Level 2 Laboratories**

**Biohazardous Materials Use Certificate (BMUC) Holder:** \_\_\_\_\_

**This plan is applicable to the following locations:**

Building & room #	Type of Room	Risk Group
	Main lab	
	Tissue Culture Facility	
	Common Lab (define activity )	
	Storage Room	

**Note:** This plan is an outcome of undertaking a risk assessment.

The emergency response plan helps to ensure that should an inadvertent release occur, it can be addressed effectively and efficiently to reduce the risk of exposure. The Canadian Biosafety Standard requires annual emergency response training to occur and be documented. A review of this plan, by your staff and the date recorded will address this requirement.

To be effective, only trained and experienced individuals should be delegated the task of training new users (this includes means of preventing releases and the steps required should an event occur). Adequate supervision is required until competency is demonstrated.

### **PART 1                    Accidents/Incidents – Medical Emergencies**

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Your Exposure Control Plan is a proactive approach in preventing an accident or incident from occurring, by ensuring all individuals are aware of the risk and the implications, and how to prevent this.

- If exposed to a biological agent through cuts, needle sticks, compromised skin, animal bites etc, immediately wash the affected area with soap and water. Cleanse the affected area for 15 minutes and cover with a bandage.
- If exposed to a biological agent through contact with mucous membrane of the eye, nose or mouth (through splashes) immediately proceed to the nearest sink/eye wash station and flush/cleanse the affected area for 15 minutes.

Note: personnel involved in a potential exposure are advised to get immediate assistance from medical professionals.

- If the event is severe or life-threatening; contact Protection Services (e.x.t 5411) to request an ambulance for transport to the hospital. The protection officer on site will guide paramedics to the appropriate location.

**\*\* Report all accidents/incidents and medical emergencies as soon as possible (Part 2).**

## PART 2 Incident Reporting

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Should an event occur it must be reported immediately to the appropriate internal authority which includes the Biosafety risk specialist. This is initiated through the submission of an accident and incident form.

Accident, Incident, Occupational Disease and Near Miss Form:

<https://web30.uottawa.ca/v3/riskmgmtfrm/aioreport.aspx?lang=en>

**Note:** It is a regulatory requirement for the Biosafety Risk Specialist to submit a notification report without delay to PHAC, with an exposure follow-up report documenting the completed investigation to be submitted (15 days for SSBA and 30 days for human pathogen or toxin other than an SSBA). The investigation will determine root causes and measures that need to be implemented to mitigate the risk.

\*Make sure to have a mechanism in place (such as a sign-up sheet) to identify individuals present during the incident as well as the response stage. This will aid in the incident investigation process.

As per the Canadian Biosafety Standard version 3.

## PART 3 Loss of Containment

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The loss of containment can be a result of a number of different causes:

- lack of appropriate training,
- poor use of biological safety cabinet (BSC) or centrifuge, vortex, homogenizer etc.,
- equipment failure,
- leaking containment (seal broken, cap loosen etc.), or
- accidental incident such as a spill.

Regardless, the outcome can be the same; a release or exposure. Containment must be regained quickly and this will require that the release is noticed as soon as possible, not necessarily easy in the case of aerosol release and the associated surface contamination when these aerosols settle. The risk assessment will identify where the risk is greatest and in turn will identify what actions are required for each specific situation. For this reason, annual review of the risk assessment is as critical as reviewing the Emergency Response Plan and Exposure Control Plan.

**Note:** any loss of containment must be reported to the appropriate internal authority which includes the immediate supervisor and biosafety risk specialist (Part 2 above).

## PART 4 Equipment Failure

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Equipment failure is often a result of increased use or lack of maintenance, this is especially a risk where equipment is shared or in core facilities where access and use are not controlled solely by one person. This makes it difficult to train all to the same standard and to ensure that the equipment is properly maintained. Financial constraints often mean that service contracts or extended warranties are not purchased, but neither are equivalent measures put in place. For this reason, each department-facility must determine the appropriate oversight and maintenance procedures in place. Lack of a standardized process does not mean that best practices should not be practiced by each user. This is critical to demonstrate due diligence in the event of an exposure.

Primary Containment Devices: BSCs that have malfunctioned should be examined by a qualified service provider. Put a “do not use” sign in the meantime. All equipment should be decontaminated with the appropriate disinfectant prior to any maintenance or repair.

If the BSC failure was the result of a power outage: close all opened containers and resume work when power returns.

Note: restart and prepare the BSC for work as per the SOP before resuming work.

With respect to other containment devices such as centrifuges (sealable cups) and isolators make sure emergency response procedures are put in place. The equipment manuals can serve as a good reference.

Alarmed Equipment: Response Plan should be placed by the equipment so that it provides direction on what action is required, whom should be contacted, and what time-lines must be respected.

## **PART 5**                    **Infected Animal Release**

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Reference the Animal Care Veterinary Services recommended procedures for recapturing animals that may have escaped containment.

## **PART 6**                    **Biological Spills**

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A Biological Spill Response Plan has been made available on the Biosafety Web Page and can be amended to address specific issues unique to your needs. This should be posted where it can be easily referenced. This covers spills within a centrifuge, inside a BSC, during transport and in the open lab environment.

## **PART 7**                    **Evacuation Plan**

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uOttawa Official Web site on Emergencies and Evacuations responses to specific issues such as fire are outlined in Step 1) <http://www.uottawa.ca/are-you-ready/>

Additional- Specific Resources:

RGN Fire and Evacuation: [Emergency Procedures | Faculty of Medicine \(uottawa.ca\)](#)

Fire Safety: [Fire safety | About us \(uottawa.ca\)](#)






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