

EMERGENCY RESPONSE PROCEDURES AT THE NEURO

CODE BROWN

This plan is adapted from the Code Brown Plans of McGill University Health Centre (MUHC) and McGill Environmental Health and Safety Office to respond to gas leaks or spills of chemicals, radioactive or biological materials used in laboratories of the Montreal Neurological Institute (MNI). Research funding at the MNI is administered through McGill University and as such researchers are governed by the policies and procedures of the University's Environmental Health and Safety Office. MNI laboratories participate in McGill's Waste Management Program for disposal of chemical and radioactive waste. On the other hand, "Code Brown" calls and responses, as well as housekeeping and security at the MNI, are under the jurisdiction of the MUHC. Thus, the MNI plans for emergency response must incorporate policies and procedures of both Institutions.

INVENTORY OF HAZARDOUS MATERIALS

The inventory of chemicals, compressed gases and radioactive compounds held in all MNI laboratories is maintained in the online chemical inventory database. Laboratory Safety Representatives have been designated by each Principal Investigator. Names and contact information are listed in the Table: "Room Contact Information List" in this database.

Access to inventory in each laboratory: Lab Safety Representatives assigned by each Principal Investigator are responsible for maintaining a hard copy of the current inventory held in each laboratory under their jurisdiction and having it available to laboratory personnel and inspectors.

Access to MSDS: The MNI maintains an [online inventory of SDS](#) for all chemicals held in MNI laboratories. Hard copies are available at the MNI Information desk. All laboratory personnel must know how to access this information.

Access to inventory and contact information by Security Personnel: A specific portal for MNI/MNH Security Personnel is provided at <http://mni.mcgill.ca/icrcl/index.htm> [Neuro Information Desk Portal]. A link to this web page has been placed on the desktop of the computer at the MNI/MNH Information Desk, but can be accessed through the internet from any computer. The username and password are available to security personnel at the Information Desk. A printout of the entire inventory and emergency contact information is held at the Neuro Information Desk and can be made available to emergency personnel on an "as needed" basis. This inventory is printed only once per annum, so may not be up-to-date with the online database.

General inquiries about the inventory should be directed to the administrative assistant to the Committee [Linda Michel at labsafety.mni@mcgill.ca loc 398-1972 or to the Chair of the MNI Laboratory Safety Committee [Dr. Heather Durham at heather.durham@mcgill.ca loc 398-8509].

Standard Procedures for Handling of Chemical Spills

DEFINITIONS:

A **MAJOR SPILL**, as defined under the MUHC “code brown” policy, is a spill that involves respiratory exposure, a highly toxic substance, a chemical product of 2 litres or more, **or any situation that is not manageable with competence or confidence.**

A **MINOR SPILL**, as defined under the MUHC “code brown” policy, is a small spill that can be readily handled by the user/generator of the product. Such an incident should not have widespread impact upon the Institute, Hospital, patients, staff and visitors, the environment or patient care. Should the spill become unmanageable; *i.e.*, cannot be immediately and effectively contained using available spill kits in the area, designate as a major spill and call 55-555 Code Brown.

ALERT PROCESS:

- The person responsible for or discovering the spill should immediately inform everyone in the room, stop traffic to the area and designate the spill as major or minor.
- **Major spill:** evacuate area, close door, and call 55-555 Code Brown, specifying the hazard. Keep all personnel away from the area. Remain out of harm’s way, but available to emergency responders. Inform the Lab Safety Representative and Principal Investigator.
- **Minor, controlled spill:** the Laboratory Safety Representative and/or Principal Investigator should be informed to assist in managing the incident.

INTERVENTION:

Major Spill: The emergency responders will handle the intervention.

Minor Spill: If the Laboratory Safety Representative is on duty, they should coordinate the clean up of a minor spill. However, all personnel using hazardous materials should know the procedures for dealing with minor spills in case the Laboratory Safety Representative or Principal Investigator is not available. Other laboratory personnel present should offer backup assistance and keep the area isolated from traffic.

For cleanup of minor spills, follow the guidelines outlined for specific classes of chemicals in section 3. [Control of Chemical Hazards](#) in the [Laboratory Safety Manual](#) published on the web site of McGill University’s [Environmental Health and Safety Office](#). Neuro-specific procedures for disposal of collected materials are described under “Recovery”.

General Principles:

- **Avoid walking in spill, skin contact, or breathing vapours/aerosolized product.** If the clean up requires respiratory protection, call 55-555 Code Brown. [Note: If person or clothing is contaminated, immediately follow decontamination procedures appropriate to the product (identify from the Safety Data Sheet prior to working with the product) and seek medical attention as required.
- Consult the Safety Data Sheet and [McGill EHS Laboratory Safety Manual](#).
- Get spill kit and don appropriate personal protective equipment including gloves, face shields and, shoe covers. Prevent contamination of person, shoes and clothing.

- Prevent spreading of the product. Control the source and confine the spill to a small area using spill kit supplies. Apply neutralizing products if appropriate and available.
- Collect product using spill kit supplies.
- Clean residual product from the spill area with water.
- Place all contaminated materials and debris in a polyethylene waste container or bag (note: polyethylene biohazard/autoclave bags are chemically resistant). Dispose of as hazardous waste (see recovery procedures).

Important: Do not ask housekeepers to clean the material. Housekeeping would mop the floor only after the spilled material is picked up completely. If you have doubts, call 55-555 Code Brown.

RECOVERY:

- Call the “all clear” and dispose of waste.
 - **Major Spill:** Emergency responders will call the “all clear” and handle waste disposal.
 - **Minor Spill:**
 - Following completion of the cleanup, announce “all clear” to other laboratory personnel.
 - Dispose of liquid/solid waste and contaminated materials in Rm 045:
 - Fill in and attach a McGill Waste Management Program (MWP) tag (available in Rm 045) and attach to the container.
 - Fill in a “[Chemical Waste Inventory Form](#)” to place in the binder in Rm 045.
 - Notify Security and take waste to Rm 045 of the MNI for disposal.
- Report: The user/generator of the product must complete a McGill EHS incident report [Accident and Incident Report Forms | Environmental Health and Safety - McGill University](#).
- Debrief: The Laboratory Safety Representative/Principal Investigator, in conjunction with the Chair of the Neuro Lab Safety Committee and Neuro Facilities will conduct a debriefing session on the incident and make any required adjustments to the departmental plan or training procedures.

Pharmaceutical Spills

Treat spill of research pharmaceuticals as chemical spills according to toxicity and chemical properties of the compound.

Spill of Radioisotopes

Response to spill of radioactive materials in a research lab is covered by the [McGill Radiation Safety Manual](#). Contact the McGill Radiation Safety Officer, Mario Badillo 398-2245 mario.badillo@mcgill.ca. For a spill in an MUHC clinical space, contact Dr. Christian Janicki christian.janicki@mcgill.ca; 8888-43866 from any McGill phone or (514) 934-1934 ext 43866).

Biohazardous Materials and Biomedical Waste

MICRO-ORGANISMS ASSIGNED TO BIOSAFETY LEVEL 1 AND 2

- SPILL OF BODILY FLUIDS, LABORATORY MATERIALS, OR BIOMEDICAL WASTE THAT ARE SUSPECTED TO CONTAIN LEVEL 2 MICRO-ORGANISMS CAN BE HANDLED BY LABORATORY PERSONNEL OR HOUSEKEEPERS. ROUTINE PROCEDURE SHOULD BE FOLLOWED FOR CLEAN UP. *THERE IS NO NEED TO CALL CODE BROWN.*

Spill Involving Biological Agent

The MNI follows procedures defined by McGill Environmental Health and Safety. Refer to [McGill's Biosafety Program](#) (section 3, [Biosafety Manual](#)).

All individuals who work in a lab where pathogens are used must know how to handle these agents safely and what to do in case of a spill. An emergency spill response protocol specific for the microorganisms in use should be prepared and posted in a visible location within the laboratory.

Procedures specific to each situation should be indicated in the “[Application to Use Biohazardous Materials](#)” form that must be submitted to McGill EHS for all projects involving biohazards.

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