



Radiation Safety Manual

Title: Emergency Procedure for Areas where Radioactive Materials are Used or Stored

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Emergency Phone Number for Fire, Police, Ambulance, Hazardous Materials Call 911

24 Hour access to Radiation Safety Officer and Access to a radiation dose survey meter or a contamination meter: Contact University of Manitoba Security

From University phones, dial direct555

Cell Phones (MTS, Roger Wireless)#555

From other phones 204 474-9341

Quick Steps

If there is fire, smoke or other signs of danger

Remove yourself and others from immediate danger.

Exit the building via nearest Emergency Exit.

Activate the nearest manual pull station as you exit the building, if alarm has not been automatically activated.

Close doors behind you (do not lock) as you leave areas. When you have reached the outside, move away from the building.

Telephone 4-911 or 555 from a landline or 911 or #555 from a cellphone to report the fire location once you are outside the building; do not assume that this has been done.

If there is an alarm (and no other signs of danger)

Stop work.

If possible, securely close containers of radioactive material and return radioactive material to shielding.

Remove gloves.

Remove lab coat.

R.E.A.C.T. (Evacuate).

If there is a medical emergency – call 911. At the University of Manitoba, *First Aid takes precedence over radioactive contamination control.*

1. Policy

The University of Manitoba shall have procedures in place to respond effectively to an emergency that occurs in an area where radioactive materials are used or stored in order to ensure:

- Exposures to radioactive materials to staff members and the public are As Low As Reasonably Achievable (ALARA), taking into consideration economic and social factors, and
- The highest standard of radiological safety and security of radioactive material is maintained under the emergency conditions as appropriate.

2. Procedures

2.1 Fire or Explosion

In the event fire or explosion occurs in an area where radioactive materials are used or stored, the building occupants will follow the local building fire plan.

2.1.1 Fire Plans

Buildings that are permitted to use or store radioactive material at levels above the Basic Level (for Open Source Permits) or have Sealed Sources with potential radiation field greater than 25 microsieverts per hour will be identified in the local building fire plan along with site-specific radiation considerations related to emergency situations.

2.1.2 Radiation Hazards

Keep in mind the potential hazards associated with fire or explosion and the direct impact on locations where radioactive material are used or stored. These hazards are:

- Radioactive material may be released from its containers and give rise to a radioactive contamination in the area local to the incident.
- Such contamination could spread to other parts of the facility if uncontrolled access is permitted to these areas prior to assessment of the radiological hazard.

2.1.3 Responsibilities of the Radiation Safety Officer

In the event of a fire or explosion in areas where radioactive materials are used or stored, when radioactive contamination or exposure to ionizing radiation is suspected, the Radiation Safety Officer has the responsibility to:

- Assess or arrange for the assessment of worker exposure to ionizing radiation.
- Revise or remove restrictions on access to the area in terms of radiological hazard.
- Supervise the monitoring of areas for radioactive contamination and the decontamination process.
- Report incidents as required by regulations.

2.2 Serious Personal Injury

In the event of a serious personal injury requiring emergency medical attention, immediately call 911.

1. Request Emergency Medical Service and state the nature of the injury as well as that the injured people might be contaminated with radioactive material.

- Provide the patients name and the type of injury or medical condition.
 - Provide the exact location.
 - If known, collect information on the radioactive material, total activity involved, the nature of the radioactive material (solid, liquid, gas and chemical form), and the extent of the contamination to provide to emergency responders when they arrive.
2. Trained First Aiders should respond to anyone that is critically injured. At the University of Manitoba, First Aid takes precedence over radioactive contamination control. Care should be taken to protect the First Aider from potential hazardous exposure to chemical, biological or radioactive materials. When possible, care should be taken to not spread chemical, biological or radioactive contamination.
 3. Contact the Radiation Safety Officer to report the situation as soon as possible. Radiation Safety Officer has the responsibility to:
 - Assess or arrange for the assessment of worker exposure to ionizing radiation.
 - Revise or remove restrictions on access to the area in terms of radiological hazard.
 - Supervise the monitoring of areas for radioactive contamination and the decontamination process.
 - Report incidents as required by regulations.

