1.0 Purpose

To outline the basic approach to a radiological incident that will ensure that the safety and health of staff, students and the environment are protected.

2.0 Policy

The University of Manitoba will respond effectively to a radiological incident to ensure that exposures to radioactive materials to members of staff and the public are As Low As Reasonably Achievable (ALARA).

3.0 Responsibility

Anyone involved or witnessing a radiological incident has the responsibility to fulfill the requirements of this procedure in lieu of management of the area in which the incident occurred until management personnel are present on the site. After this time, it is the responsibility of the most senior manager available to implement this procedure.

For Radiological Incidents, the Radiation Safety Officer has the responsibility to revise or remove restrictions on access to a location where radioactive contamination is possible.

The University of Manitoba Radiation Safety Officer has the responsibility to supervise the monitoring of areas for radioactive contamination and decontamination process following a major radiological incident.

In the event of complications, medical assistance is available from, the Radiation Medical Advisor, Department Head or Physician on Call, Nuclear Medicine Phone: 787-3837.

4.0 Definitions

Minor Radiological Incident A Minor Radiological Incident is one that is known to involve less than 1MBq (27uCi) or 100EQ (which ever is more restrictive) of radioactive material that is not volatile and there is no risk of personnel contamination (body or clothing).
Major Radiological Incident  A Major Radiological Incident is one that may or is known to involve more than 1MBq (27uCi) or 100EQ (which ever is more restrictive) of radioactive material; or, involves any release of radioactive mists, fumes, vapors or gases; or there is a real or suspected personal contamination (body or clothing). All incidents involving the possibility of the damage to portable gauges are major incidents. All incidents involving portable gauges are considered a specific type of Major Incident and shall be responded to in accordance with RSP-015 Procedures for Portable Gauges.

5.0 Procedures

5.1 Portable Gauges  Follow RSP-014.

5.2 Serious Personal Injury  If an injury requires emergency medical attention call Security Services at 555 or 474-9341 (At MICB: Call 911 and 787-4567.) Respond with first aid to anyone that is critically injured. 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 the any chemical, biological or radioactive contamination. Request Emergency Medical Service and state the nature of the injury as well as that the injured people may be contaminated with radioactivity.

5.2.1 Provide: The patients name,  
The radioisotope,  
The total activity involved,  
The nature of the radioactive material (solid, liquid, gas and chemical form), and  
The extent of the contamination,  
The type of injury or medical condition.

5.3 Internal or External Exposure.  If you suspect that you have received an external or internal exposure (you were inadvertently exposed to unshielded radioactive material or you believe you may have inhaled or ingested radioactive material), immediately contact Radiation Safety Officer (789-3613).

5.4 Personal Contamination.  If you find that your body (eyes, skin, hair) is contaminated, immediately start decontamination procedures.  As soon as possible contact Radiation Safety Officer (789-3613) for assistance in safe
decontamination techniques. Personal decontamination procedures are outlined in Appendix 1.

5.5 **Cuts or Abrasions.** If you cut yourself or sustain an abrasion while working with radioactive material follow the appropriate procedure outlined in RSP-011. Contact Radiation Safety Officer (789-3613).

5.6 **Eye contamination:** Use local eyewash as soon as possible, follow detailed instruction outlined in RSP-011. Contact Radiation Safety Officer (789-3613).

5.7 **Radioactive Contamination (Non-Personal)** In the event of the identification of radioactive contamination, as soon as possible, perform a personal contamination monitoring to determine if you are contaminated (RSP-011). For a major radiological incident contact the Radiation Safety Officer (789-3613) as soon as possible to report the presence of contamination. For minor radiological incident follow the decontamination procedure outlined in RSP-012.

5.8 **Radioactive Spill** In the event of a spill of radioisotopes, follow the actions outlined in RSP-012. Notification of Radiation Safety Personnel might be necessary.

5.9 **Release of Radioactive Mists, Fumes, Vapors and Gases.**

5.9.1 In the event of a release of radioactive mists, fumes, vapors and gases turn off the room ventilation and on the fume hood. Leave the area as soon as possible. Detailed instructions are outlined in RSP-013.

5.10 **Loss or Theft of Radioactive Material** As soon as you suspect or discover that radioactive material is missing contact the Radiation Safety Officer immediately at 789-3613.