

**Unique Permit Number (Holder's Initials - #)**

**Permit Holder (project supervisor) responsible for all HP related issues**

**For each isotope, the max amount of activity in use and possessed is listed here**

**Approvals for sealed sources and devices listed on the application are shown here**

**Special Conditions for work dealing with <sup>32</sup>P and other high energy beta emitters**

**Lab Level: Basic Intermediate, High, SS & D, or Storage**

**Important Dates - Check them often and renew Permits in advance**

**Projects covered in the permit. Only listed work is to be performed**

**Rooms in which the permit is valid - each room must have a valid permit posted**

**Additional Approvals required for type of work**

**Standard Permit Conditions included in most permits Check Yours!**

**Radionuclide Specific Conditions included in your permit.**

McMaster University Health Physics Advisory Committee

**Permit to Use Radioactive Material (Basic Level)**

This permit is issued by the Health Physics Advisory Committee (HPAC) for the possession, use and disposal of radioactive material solely at McMaster University.

Permit Number: IMF-2 Date Of Issue: 2003 October 8

Permit Holder: Dr I.M. Faculty Date Of Expiry: 2005 June 30

Approved Use(s):  

- Mystery compound labeling study

**Approved Radionuclides**

Radionuclide	In Use per Experiment (mCi)	MBq	Possession Limit (mCi)	MBq	Room(s)	Use Type
<sup>32</sup> P	0.1	4	5	200	XYZ-211, 524	In-vitro
<sup>32</sup> P	0.1	4	5	200	XYZ-211, 524	In-vitro
<sup>46</sup> Ca	0.05	2	5	200	XYZ-211, 524	In-vitro
<sup>125</sup> I	0.01	0.4	0.01	0.4	XYX-211, 524	In-vitro

**Approved Sources and Devices**

Radionuclide	Source/Device Model	Activity (mCi)	(MBq)	Room(s)
<sup>137</sup> Cs	Beckman LS 6000	0.001	0.04	XYZ 202

**Conditions Of Approval**

**All Radionuclides**

- A copy of this permit must be posted in each listed laboratory.
- All work must be conducted in the manner specified in the permit application. Any substantial changes to these procedures require prior approval of the HPAC.
- The purchase, use, storage and disposal of radioactive material must be in accordance with the regulations of the Canadian Nuclear Safety Commission and the rules and regulations of the HPAC as described in "Health Physics Regulations" and "Health Physics Safety Guide".
- All workers must complete training by Health Physics prior to initiating work with radioactive material.
- Only authorized persons designated as Nuclear Energy Workers (NEW's) may perform work under this permit.
- Radioactive waste must be disposed of through Health Physics.
- Personal and laboratory contamination must be checked at the end of each working day.
- Health Physics must be notified when this project commences.

**Phosphorus-32 And Other Energetic Beta-Emitters**

- Health Physics must observe the initial experiment of each worker regardless of the quantity used.
- Extremity dosimeters must be worn if the experiment involves more than 0.25 mCi (10 MBq) of the beta-emitter.

**Radioiodine**

- All workers must complete thyroid screening **within five days**:
  - after using 50 MBq of unbound radioiodine at one time in a fumehood.
  - after using 5 MBq of unbound radioiodine at one time in an open room
  - after any involvement in a spill of greater than 5 MBq of unbound radioiodine.
  - after detection of external (skin, hair etcetera) radioiodine contamination.
- McMaster Health Physics must observe the initial iodination by each worker.
- Protective clothing must be worn during iodinations.
- Pregnant workers must not conduct iodinations.