IV. AUTHORIZATION TO USE RADIOACTIVE MATERIALS

A. The Radioisotope Permit

Prior to undertaking radioactive work, a researcher must submit an application for an internal permit to the Director of Radiation Safety outlining the research project, the isotope(s), and expected quantities to be used. Applications for a radioisotope permit are available in Appendix II (see Permit Application form). Once issued, a copy of the permit is to be posted on the outside of the door of each authorized room.

B. Amendments of Permits

Permit holders are responsible for notifying the Radiation Safety Office of any changes in authorized personnel, rooms, isotopes in use, or projects. Notification can be made via email.

C. Renewal of Permits

- Permits expire on the date specified on the existing permit.
- Preceding the expiration date there will be a period of conditional approval. This period is indicated on the permit.
- At least a month before the start of the conditional approval period the RPO will contact the permit holder to determine whether renewal is required and if any amendments are necessary.
- If no requests for renewal have been received by the RPO at the start of the conditional approval period the permit will have expired at that date, otherwise the permit will be extended to the expiry date.
- A current inventory of radioactive materials in stock must be given to the Radiation Safety Office on an annual basis.

D. Teaching Permits

The teaching of laboratory courses in which radioisotopes are handled requires that the person in charge of the course obtains a temporary permit from the RSO. This authorization will be granted at the beginning of each term once the following information is received:

- instructor name,
- class list,
- outline of experiment(s) involving radioactive materials.

The temporary permit will be issued by the Radiation Safety Office if the experiment(s) are approved. One of the condition of the permit is that a safety presentation be given to the
students at the beginning of the term by the Radiation Safety Office or an approved individual (usually the course instructor).
E. Internal Radioisotope Permit

The following shows a sample internal radioisotope permit

SIMON FRASER UNIVERSITY
INTERNAL RADIOISOTOPE PERMIT

Permit No: 06110
Date of Issue: 1 May 2006
Review Period: January 2007
Expiry Date: 30 April 2008

1. Name, address and telephone number(s) of Permit Holder:
   Name
   Department
   Simon Fraser University
   Burnaby, B.C.
   V5A 1S6
   Telephone: 291-3506
   Contact Person:

2. Name(s) of persons, other than Permit Holder approved for work with Radioisotopes

3. Approved Isotopes:

<table>
<thead>
<tr>
<th>Isotope</th>
<th>Possession Limit</th>
<th>Handling Limit Fume Hood</th>
<th>Handling Limit Open Bench</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-32</td>
<td>370 MBq</td>
<td>370 MBq</td>
<td>37 MBq</td>
</tr>
</tbody>
</table>

4. Locations approved for the use of Radioisotopes:

Basic: SSB 6134, SSB 6136, SSB 6152, SSB 6154, SSB 7167, SSB 7135, SSB 6130
Intermediate: B7249, SSB 7139, SSB 6160

continued...
5. **Approved usage:**
For studies of radiation effects on biological systems and thermo luminescence and optical dating research.

---

6. **Method of Isotope Disposal:**
Solid and liquid waste to be returned to Room B7249.

---

7. **Other Conditions of Approval:**
   a) All sources shall be marked with a radiation warning symbol in accordance with the Nuclear Safety and Control Act.

   b) Only the persons mentioned under Sections 1 and 2 will be allowed to handle the radioisotopes listed above without direct supervision. Those persons shall receive instruction in the safe handling and storage of radioisotopes and be made aware of the potential hazards of such use.

   c) User wipe tests and area monitoring must be done at minimum on a weekly basis after handling open radioactive sources and a record kept of the results.

   d) All sources shall be accounted for and an up-to-date inventory is to be kept.

   e) A waste stream analysis and record must be made of all waste generated and its location.

   f) No radioactive materials may be used in experiments involving human subjects.

   g) The monitor shall be used with the audio signal on while handling P-32, I-125 and other hard beta

   h) An inventory of radioisotopes and a review of permit conditions must be submitted annually to the Radiation Safety Office upon request.

   i) This permit expires on 31 January 2007, unless a request for renewal has been received by the R.P.O. by that date. Upon receipt of this request for renewal before the aforementioned date, this permit will be extended to 30 April 2008.
The use of the above-mentioned material(s) is authorized by the SFU Radiological Safety Committee subject to the conditions of approval stated herein and otherwise subject to the provisions of the SFU Radiation Safety Manual.

J.C. Brodovitch
Director, Radiation Safety

Date