



## Laboratory Radiation Safety Inspection Checklist

Permit Holder: _____	Permit No. _____	Permit Status _____
Building : _____	Department. _____	Room(s) _____
Auditor: _____	Date. _____	Signature _____
Laboratory Type: <input type="checkbox"/> <b>Basic Level Laboratories</b> <input type="checkbox"/> <b>Intermediate Level Laboratory</b> <input type="checkbox"/> <b>Other</b> _____		
<b>Overall Grade*:</b> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>		
<b>Radiation Safety Management</b>		
<b>1.1 Signs &amp; Postings:</b> There are appropriate & correct radiation warning signs in the designated room, including CNSC spill procedures and guidelines for handling radioactive packages.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.2 Food &amp; Drink:</b> There is no evidence of any food/drink consumption in designated radiation work areas or rooms		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.3 Permit &amp; Active Users:</b> There is a valid permit posted in the lab. A list of authorized radiation users is available in the 'radiation folder'. If the permit is in 'Dormant Status', it is indicated in the 'radiation folder'. Radioisotopes in use in the designated lab are according to the valid permit.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.4 Dosimetry:</b> All personnel handling high energy beta particles & gamma emitters are wearing their assigned TLD badges when applicable. The badges are stored in an appropriate location and manner.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.5 Dose Limit &amp; Thyroid Screening:</b> The PI is aware of Effective Dose limits and University of Guelph's Action level. Users of radioiodine such as I-125/I-131 are participating in thyroid screening if necessary.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.6 Fume Hood:</b> Fume hoods have had their performance verified within one year.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.7 Radiation Instrument:</b> Survey meters (portable) are in good condition and have been calibrated within one year.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	
<b>1.8 Area Posting:</b> a) Active work stations, containers, storage areas, pipets, fridges etc. are labelled with appropriate radiation tape. b) There is no 'Frivolous Posting' of radiation warning signs on items, boxes, vials or areas where there is no nuclear substance or radiation device.		
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:	



<b>1.9 Contamination:</b>	
<p>a) Contamination monitoring is performed and recorded in the ‘Radiation Folder’ using the U of G monthly monitoring form. Records are easily accessible in the designated labs.</p> <p>b) Contamination monitoring is recorded in Bq/cm<sup>2</sup> and is performed within <b>seven (7) days</b> after working with unsealed nuclear substances. If no work is performed it is clearly recorded in the form.</p> <p>c) Best practices such as contamination monitoring of work station and hands/clothing is performed immediately after working with isotopes.</p>	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>1.9.1 Contamination Monitoring &amp; Wipe Tests Records:</b>	
<p>a) Are Liquid Scintillation Counters (LSC) used:      Yes: <input type="checkbox"/>      No: <input type="checkbox"/></p> <p>If Yes: Room Location for Counter: _____      Condition of Counter: _____</p> <p>b) PI and radiation users are correctly and effectively conducting wipe tests as per the Radiation Safety Manual.</p> <p>c) Locations for contamination monitoring &amp; wipe tests are clearly labelled on the map and the records are kept in the “Radiation Folder”.</p> <p>d) Contaminated areas are cleaned and re-monitored.</p>	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Inventory</b>	
<b>2.0 Inventory:</b> All nuclear substances in storage or in use have inventory records. The total amount of activity for a radionuclides in use is tracked and known. If in ‘Dormant Status’ inventory is properly secured.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>2.1 Fridges:</b> There is an up to date inventory sheet for items in the fridge. If the fridge has a locking mechanism, it is kept locked when not in use. Items no longer in use are disposed.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Training and Awareness</b>	
<b>3.0 EHS Radiation Safety Training:</b> All workers including the PI and designated radiation users in the lab have completed the U of G EHS radiation safety training or refresher training in the last three (3) years.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>3.1 Radiation Safety Awareness:</b> Non-Radioactive workers in the lab are aware that radioactive sources are being used in their work area.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Purchasing</b>	
<b>4.0 Purchase Records:</b>	
<p>a) All radioactive/nuclear substance purchasing is done in accordance with the RSO and purchasing department at the University of Guelph.</p> <p>b) PI has all purchase records available. Proper U of G purchasing methods are followed while ordering/cancelling purchase orders.</p> <p>c) PI is aware of their purchasing limits</p>	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Operations</b>	
<b>5.0 ALARA:</b> Radiation users are conducting experiments keeping the ALARA principle in mind. All users are operating equipment and using nuclear material using best practices. All users are using correct PPE.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:



<b>5.1 Change Management:</b> Change in operation including relocation or transfer of radioactive material is in consultation with RSO if applicable.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Packaging</b>	
<b>6.0 Packaging:</b>	
<ul style="list-style-type: none"> <li>a) There is a valid CNSC poster with guidelines for handling packages containing nuclear substances in the lab. Users ensure that radioactive packages are delivered to them in good condition.</li> <li>b) Any shipping or transport of nuclear substances, radioactive materials, including devices such as LSC or ECD are done in consultation and approval from the RSO.</li> </ul>	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Disposal &amp; Decommissioning</b>	
<b>7.0 Disposal:</b> PI and workers are using the proper SOP for radioactive disposal. Containers for disposal are clearly marked and secure. Proper wipe test procedure is followed before disposal. Proper Disposal forms are used.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>7.1 Decommissioning:</b> Rooms that are no longer in use for radioactive work have been decommissioned or are in the process of decommissioning.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Security</b>	
<b>8.0 Security:</b> Rooms are locked when not attended. Radiation storage areas are secure and locked. Only authorized users are allowed in rooms designated for radioactive use or storage.	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:
<b>Emergency Preparedness</b>	
<b>9.0 Emergency Info:</b>	
<ul style="list-style-type: none"> <li>a) Emergency contacts are current and listed clearly. All radiation users are aware of U of G Radiation Safety Officers' contact information.</li> <li>b) Laboratories have updated CNSC spill posters and they are clearly posted in the lab.</li> <li>c) Radiation users are aware and have adequate information on contamination, spill response and reporting procedures. The RSO has been notified of any major spills since the last auditing period.</li> <li>d) Radiation users are aware of U of G's incident and injury reporting process. The RSO has been notified of any other incidents such theft, lost/damage to radiation devices and or sources.</li> </ul>	
Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/>	Comments:

**Grading System:**

- ☞ A (Exceeds Expectations, Complaint)
- ☞ B ( Meets Requirements, Complaint),
- ☞ C ( Below Requirements, but low risk),
- ☞ D (Significantly below requirements, a follow up-audit will take place),
- ☞ E ( Unacceptable, Radioactive work will be stopped immediately)