Radiation Safety Training Sealed Source Orientation Self Study Assignment

University of Manitoba Revised June 1, 2018

The student is to clearly print or write all responses on this document. Please answer the questions in a manner to demonstrate your understanding of radiation safety. This assignment will be used to assess your competency in order to be listed as a designated worker on an Internal Radioisotope Permit.

Prior to completing the assignment – read or review the individual documents linked under "Self Study Assignment" on the web at:

http://umanitoba.ca/admin/vp_admin/risk_management/ehso/images/Radiation_Training_SS_Orientation_Self_Study_Assignment.pdf

Name of Student completing the assignment: _______(*Please underline your family name*)

The original completed assignment <u>must</u> be mailed to: Environmental Health & Safety P310 Pathology Building

May be sent electronically – Hard copy must follow! Scan and e-mail to: <u>radsafety@umanitoba.ca</u> or Fax to: 789-3906

Section 1: Basics of Radiation:

- 1. List three types of non-ionizing radiation:
- 2. What is the difference between X-rays and gamma rays?
- 3. You just received a Co-57 sealed source and you do not plan to start the experiment right away. Can the rate of decay be slowed down? (circle one)

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Yes / No
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4. What is a Becquerel?

Section 2: Exposure risks:

5. The exposure from background radiation is higher than the regulatory exposure limit for a member of public. (circle one)

True / False

6. You must always take your dosimeter badge with you to a scheduled medical X-ray exam. (circle one)

7. Everybody who receives a dose of 1000 mSv will develop cancer. (circle one)

True / False

- 8. List three ways on how to decrease your whole body exposure.
 - a.
 - b. с.
- 9. What is the amount of radioactive material (activity in MBq) in a sealed source that requires the source to be leak tested?

Section 3: Legal Requirements:

- 10. Name the federal regulatory agency that has control of radioactive material in Canada.
- 11. List four items of information that can be found on the Internal Radioisotope Permit.
 - a. b. c. d.
 - a.
- 12. Radioactive sealed sources, when not in use, shall be secured in a locked box or cupboard and the key accessible to only workers listed on the Radioisotope permit. (circle one)

True / False

13. List all the records required to be kept in the Radiation Safety Records binder (for eight years).

Section 4: Emergency Response:

14. Find and review the University of Manitoba Radiation Safety Emergency Procedures in your Radiation Safety Manual or review RSP-1 related to Radiation Emergency Response at: http://umanitoba.ca/admin/vp_admin/risk_management/ehso/media/RadMan17-1_ER.pdf and

RSP-4 section 9.2, item 6 states:

In the event of any incident that may have caused damage to the source IMMEDIATELY CONTACT Environmental Health and Safety to request an emergency leak test kit.

Declaration: By signing below, I have acknowledged that I personally have completed all the submitted answers to the questions.

Signature of person completing the assignment:

Date of Signature:

Name of Permit Holder: