

## July Quiz Questions

### Radiation Safety

1. Radioactive materials may only be used:
  - a. Under the supervision of a Permit Holder who has been approved by the Radiation Safety Committee.
  - b. In Radiation Safety Committee approved locations.
  - c. By personnel who have completed the Radiation Safety Orientation and passed the associated test.
  - d. All of the above.
  
2. Containers used to ship radioactive materials must be tested and verified to be free of radioactivity prior to disposal in the regular trash. To show this has been done:
  - a. Radioactive materials labels are removed or otherwise obliterated by clearly marking through them prior to disposal in the regular trash.
  - b. A label saying "tested negative" is affixed to the empty container. Radioactive labels remain in place.
  - c. Nothing, the containers are simply placed in the regular trash.
  - d. Containers used to ship radioactive materials must be disposed of in radioactive waste and not in the regular trash.
  
3. Which of the following is true regarding survey meters?
  - a. A survey meter is required to be on the bench and turned on when radioactive materials are in use, unless only H-3 is being used.
  - b. H-3 cannot be detected by any handheld survey meter at SLU. Wipe tests and a Liquid Scintillation Counter must be used to detect H-3.
  - c. The survey meter should be appropriate for the type of radiation in use.
  - d. All of the above.
  
4. If you accidentally walk through an area that is believed to be contaminated with radioactive materials which of the following should you NOT do?
  - a. Remain at the scene and keep movement within the area to a minimum.
  - b. Wait to be tested (surveyed) by a qualified spill team member.
  - c. Leave the area immediately and then clean your shoes thoroughly.
  - d. Leave the area only after you have been surveyed and are told by a qualified spill team member that you may leave the area.

5. Which of the following is true for radioactive contamination surveys?
  - a. Surveys are done during and after each experiment involving radioactive materials.
  - b. Laboratory-wide contamination surveys are documented weekly.
  - c. Contamination surveys are done only after a spill of radioactive materials has occurred.
  - d. Both a. and b.
6. Eating, drinking, smoking or application of cosmetics or contact lenses:
  - a. Is allowed at your desk in the open lab space in Edward A. Doisy Research Center (DRC).
  - b. Is not allowed in any laboratory where biological, chemical, or radioactive materials may be present.
  - c. Is allowed in the laboratory if all radioactivity is in storage.
  - d. Is not allowed in any building where radioactive materials are used.
7. What is the most likely source of an internal radioactive exposure in a research laboratory?
  - a. Inhalation of airborne radioactivity.
  - b. Needle stick involving radioactivity.
  - c. Poor lab hygiene resulting in radioactive contamination being transferred to an individual's hands and from hands to mouth possibly via a pen or pencil, eating or drinking, etc.
  - d. Absorption of radioactive materials through the skin.
8. Radionuclides that evaporate readily into air and may be inhaled:
  - a. Are required to be used in fume hoods that are routinely measured, approved, and posted with a warning sign by Radiation Safety staff.
  - b. May be used on any benchtop designated for radioactive materials use.
  - c. Are prohibited at SLU.
  - d. Require that a respirator be worn while using them.
9. Which of the following is true regarding radioactive materials laboratory inspections?
  - a. Any significant safety or compliance issues are reported to the Radiation Safety Committee (RSC) and the Administration of Saint Louis University.
  - b. Radiation Safety staff inspect labs quarterly, including contamination survey records.

- c. The Radiation Safety Officer (RSO) has the authority to shut the lab down if it is deemed necessary.
  - d. All of the above.
10. Which precautions should be taken if you need to enter a restricted area?
- a. Stay a minimum of twenty feet from any designated radioactive area.
  - b. Avoid touching any container, box, trash can, etc. labeled with the words "Radioactive" or "Radioactive Materials" (even if only hand-written).
  - c. Do not touch any of the bench tops in the designated radioactive areas or any equipment in those areas.
  - d. Both b. and c.