

12/12

100.0%

The following is not considered an ionizing source of radiation.

1/1

Alpha

Beta

Kappa

Gamma

Sources that emit beta particles are best shielded by lead.

1/1

True

False

The NRC places a high priority on security. Which of the following are requirements you have agreed to in order to keep radioactive material secure on the Purdue University campus?

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Secure the laboratory when unoccupied

Secure the radioactive material (RAM) when laboratory security is not feasible

Account for RAM through material inventory records

All of the above

A co-worker is performing an experiment with a sealed source. She faints and falls to the floor, dropping the source, which cracks and release solid bits of material, some of which sprinkle on her. Your first action should be to:

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Immediately attend to the injured coworker and contact medical personnel.

Call REM and wait for instructions.

Survey the area before attempting to enter the spill zone.

What regulations establishes the whole body exposure limits a worker can receive over a period of time?

1/1

49 CFR Part 173

10 CFR Part 19

10 CFR Part 20

ANSI Z136.1

You are performing an experiment using Co-60, and are standing 1 meter away from the source and the exposure rate is 1 mR/hour. If your lab partner is standing 2 meters away from the source, what would you expect the exposure rate to be at their location?

1/1

0.5 mR/hour

0.25 mR/hour

0.75 mR/hour

0.625 mR/hour

None of the above.

Methods that can be used in a laboratory to keep personnel exposure rates to As Low As Reasonably Achievable (ALARA) include:

1/1

Reduce the time spent near the radioactive material.

Increase the distance away from the radioactive material (e.g. use tongs to handle sources).

Use proper shielding around the radioactive material.

All of the above.

A woman working in your lab, who also works with sealed sources, has discovered that she is pregnant. She must declare her pregnancy to the Radiation Safety Officer, which would restrict the dose to the fetus.

1/1

True

False

If another lab wants to borrow your sealed source, and you know that they are approved for radioactive material use, you can lend it to them without contacting the radiation safety office.

1/1

True

False

You must comply with the rules and regulations regarding sealed sources as established by:

1/1

The United States Nuclear Regulatory Commission (USNRC)

The Purdue University Radiation Safety Committee and Radiation Safety Officer

The Purdue University Radiation Safety Manual

All of the above

The regulatory exposure limit to the whole body is:

1/1

50 rem/year

5 rem/year

20 rem/lifetime

50 mrem/year

Cancer is a stochastic effect of radiation exposure:

1/1

True

False