Radiation Safety Training for Transport of Class 7 Goods

Radiation Transport Level 2 Course

Required Achievement = 100%

Reference Documents

1. Class 7 Transport Notes
2. Supplementary Information
3. Code for the Safe Transport of Radioactive Material Radiation Protection Series C-2 (Rev. 1) March 2019
4. Radiation Protection in Planned Exposure Situations – Radiation Protection Series C-1

Participant Name	
Date	
Signature	
Trainer/Assessor	
Result	

By signing this exam, the participant is stating that the work submitted is their own work. The use of AI tools such as ChatGPT are not permitted for any assessments completed during the course.

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Initial _____

1. Over time, the activity of a radioactive source will:

   a) Increase annually.
   b) Decrease via radioactive decay.
   c) Stays the same.
   d) Drops to zero

2. Choose the SI Unit for activity:

   a) Sievert.
   b) Becquerel
   c) Coulomb/kilogram.
   d) Gray

3. Complete the following table:

Decay Process	Emission type	Shielding
Alpha Decay		
Beta Decay		
Gamma Emission		
Spontaneous Fission		

4. Biologically, ionising radiation can cause:

   a) Effects at very high doses only
   b) No genetic effects
   c) Increased risk of cancer
   d) Heartburn

5. There are known biological effects from radiation exposure. Provide two (2) examples for each effect:

   a) Acute effects _____

   b) Chronic effects _____

   c) Genetic effects _____

6. Select the unit that is used to describe equivalent dose:

a) Rad
b) Becquerel
c) Sievert
d) Curie

7. The annual equivalent dose limit for a radiation worker is:

a) 20mSv
b) 15mSv
c) 75mSv
d) 100mSv

8. The annual dose over and above background radiation, in 1 year for a member of the public is:

a) 1mSv
b) 5mSv
c) 2mSv
d) 200µSv

9. According to the inverse square law, by doubling the distance away from a radiation source the dose rate is:

a) Doubled
b) Quadrupled
c) Halved
d) Quartered

10. You can minimise radiation exposure by following three basic principles.

a) If you reduce _____ you will reduce accumulated dose.

b) If you increase the _____ radiation exposure will decrease.

c) If you use _____ radiation exposure will decrease.

11. You have a task that will take place over two days twice each month. You are limited to eight hours work each day and the radiation level in the driver's compartment is 10 µSv/hr.

a) What is your total annual dose? (Show workings)

b) Refer to the ARPANSA code of practice: Radiation Protection Series C-2 (Rev. 1) and what must be conducted in this situation?

12. The person who alternates this task with you is on extended leave and you're the only person available to do this work. Your employer asks you to do this task every week.

a) What would be the annual dose rate if you agree to 50 weeks work?

b) Refer to the ARPANSA code of practice: Radiation Protection Series C-2 (Rev. 1) and what must be conducted in this situation?

13. What instrument would be best to detect the presence of Radiation?

a) Radiation Survey Meter (Automess, Tracerco, RadAlert etc)
b) Parking meter
c) Passive dosimeter worn at chest level.
d) Metre ruler.

14. What are two checks to perform with your radiation survey meter prior to using it?

a) _____

b) _____

15. The primary purpose of a personal alarm dosimeter is:

a) To measure the annual dose received.
b) Warn the wearer of immediate danger.
c) To measure the distance from radiation.
d) To prevent water damage.

16. Out of the packaging listed below, indicate in what order they should be from most stringent (1) to lowest test for integrity (3).

(____) Type B(U)

(____) Type A

(____) Type C

17. What are two documents that legislate how Class 7 Goods are transported in Queensland?

a) _____

b) _____

18. Who is responsible for ensuring the security of the consignment during transport:

a) Regulatory Authority
b) Person transporting the consignment.
c) Company who owns the consignment.
d) Police and First Responders.

19. Select from the images below the most suitable method of securing a Class 7 load from movement during transport in a utility.

a) A
b) B
c) C
d) D



A



B



C



D

20. In the event of an incident involving transport of Class 7 goods, what should be the first two actions performed:

a) _____

b) _____

21. In reference to the supplementary information sheet, is the special form certificate supplied the correct certificate for the consignment? Give two reasons why or why not.

a) _____

b) _____

22. You are required to transport a Radiation Source.

Use the supplied supplementary information sheets:

a) Calculate the current activity.(Show Calculations)

b) Select and fill in the correct label below.









Please print the labels / placards selected to the correct size, this is required for the practical test – Question 23

Initial _____

23. You are to transport a Type A consignment by road transport.

a. Print the required number of labels that used in Question 22 and attach to a suitable container (Use a simulated cardboard container). Record images for assessment.

b. Secure the container in a road transport vehicle for safe transport. Record images for assessment

c. Referring to the images supplied in the previous question (22), identify the correct image for a vehicle placard. Print the required number to the correct size. Attach these to a road transport vehicle and record images for assessment.

24. You are required to complete a declaration for DG7 radioactive material for transporting the Class 7 goods from question 23.

Once completed, please send for assessment. (The declaration can be completed using editing software or handwritten and scanned)

Use the supplied supplementary information sheets.

You are also transporting this package

You are transporting from your current location to Danny Glow at DG International Brisbane Airport.