



ASNT Study Guide: Industrial Radiography Radiation Safety second edition

Errata – 2nd printing 03/22

The following text correction pertains to the second edition of the ASNT Study Guide: Industrial Radiography Radiation Safety. Subsequent printings of the document will incorporate the corrections into the published text.

The attached corrected page applies to the second printing 03/22. In order to verify the print run of your book, refer to the copyright page. Ebooks are updated as corrections are found.

Page	Correction
88	For review question 30, the correct answer is “a. 11.0 mrem (110 μ Sv)” and the answer key should read “30a.”

- 33.** While using 88 Ci of iridium 192 (3256 GBq), where would be the high-radiation area boundary? Assume a standard dose rate of 5.2 R/h/Ci at 1 ft (52 mSv/h/Ci at 1 ft).
- 68 ft (20.73 m)
 - 96 ft (29.27 m)
 - 43 ft (13.11 m)
 - 27 ft (8.23 m)
- 34.** A thickness of 0.2 in. (4.83 mm) of lead will reduce the exposure of iridium 192 to one-half its original intensity. This is known as the:
- half-layer value of lead for the energies associated with iridium 192.
 - half-life value of lead for the energies associated with iridium 192.
 - half-value layer of lead for the energies associated with iridium 192.
 - half-value of lead for the energies associated with iridium 192.
- 35.** Assume that 0.2 in. (5.08 mm) of lead is 1 HVL. How many HVLs would be in a sheet of lead 0.6 in. (15.24 mm) in thickness?
- 1 HVL
 - 3 HVLs
 - 5 HVLs
 - 2 HVLs
- 36.** If 0.2 in. (5.08 mm) of lead is 1 HVL, and there is a total of 3 HVLs of lead between the radiographer and an intensity of 100 mR/h (1000 μ Sv/h), what would the exposure rate be where the radiographer is?
- 50 mR/h (500 μ Sv/h)
 - 25 mR/h (250 μ Sv/h)
 - 12.5 mR/h (125 μ Sv/h)
 - 33 mR/h (330 μ Sv/h)
- 37.** Assume 0.50 in. (12.7 mm) of steel equals 1 HVL for iridium 192. How many HVLs would be in 1.5 in. (38.1 mm) of steel?
- 3.28 HVLs.
 - 3.0 HVLs.
 - 3.5 HVLs.
 - 0.328 HVLs.
- 38.** If 0.2 in. (5.08 mm) of lead is 1 HVL, a piece of lead 0.4 in. (10.16 mm) thick would reduce the exposure rate by:
- 25%
 - 50%
 - 75%
 - 100%
- 39.** A 50 Ci (1850 GBq) source of iridium 192 has a surface reading of 50 mR/h (500 μ Sv/h). What would the surface reading be after 150 days?
- 20 mR/h (200 μ Sv/h)
 - 50 mR/h (500 μ Sv/h)
 - 12.5 mR/h (125 μ Sv/h)
 - 25 mR/h (250 μ Sv/h)

ANSWERS:	1c	2b	3d	4d	5d	6c	7b	8c	9a	10c	11a	12d
	13a	14b	15b	16d	17d	18b	19d	20a	21d	22c	23a	24c
	25d	26c	27d	28d	29b	30a	31a	32b	33a	34c	35b	36c
	37b	38c	39c									