

**POTENTIAL
USERS OF
SIRADs**

POTENTIAL USERS FOR SIRADs

Anyone who can potentially be exposed to a high dose (higher than 1 rad) of ionizing radiation can use SIRADs. They include:

- First responders, such as police, firefighters, medical personnel, etc. who would be the first to arrive on the scene of a radiological attack
- Medical personnel who work with radioactive materials or radiation sources, such as X-ray units
- Defense personnel, such as the Army, Navy, Air Force, National Guard, etc.
- Coast Guard, customs officers, and others who patrol our borders

POTENTIAL USERS FOR SIRADs (cont'd)

- Workers who administer radiation therapy
- Workers at nuclear power plants
- People living around nuclear power plants
- People working at radiation processing plants, such as radiation sterilization plants
- Those in occupations who come in contact with a large number of people, such as bus/train drivers and airport workers
- Users of TLD and other dosimeters and detectors can use RADSticker to instantly know accidental exposure to high dose

COMPARISON

EXAMPLES OF SOME COMMERCIALY AVAILABLE DETECTORS, PAGERS AND DOSIMETERS



Lift the red cover to estimate the dose more accurately when needed. Estimate the radiation exposure by matching the color of the sensor with numbered bars. Avoid prolonged exposure to sunlight & heat. Made 02/08

RAD Triage

25	10	5	2	0 (rad)
1000	400	200	100	50 (rad)

↑ FIT Indicator

Expires (1) one year from the issue date or (2) when the color of the area surrounding the central dot of the FIT indicator matches bar on the right. The dose calibration is invalid if the central dot of the FIT indicator is red.



COMPARISON OF RADIATION DOSIMETERS



	Electronic (Geiger..)	Quartz Fiber	Film (AgBr)	TLD	OSL (Luxel)	RADTriage
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Approx. price (** \$100 - 300 including, service and logistics costs)	\$200	\$100	\$20-200**	\$20-200**	\$20-200**	\$~10
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Sensitivity	Most	High	High	High	High	Low
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Film Dosimeters

Results	Instant	Instant	Days	Days	Days	Instant
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Reusable	Yes	Yes	No	Yes	Yes	Disposable
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TLD Dosimeters

Size	Bulky	Bulky	Small	Small	Small	Smallest
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Shock	Sturdy	Fragile	Sturdy	Sturdy	Sturdy	Sturdiest
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Archiving	No	No	Yes/fixed	No	Stored	Yes/fixed
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Shelf life	NA	NA	Month	Months	Months	One year+
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* = LLD for 0.01-0.25 Gy SIRAD would be about (5 mGy)

** = Negligible effect with black protective cover

TLD = Thermoluminescence Dosimeter

LLD = Lowest Limit of Detection

OSL = Optically Simulated Luminescence

