Safe Training Systems Ltd.

TSA PRM 470CS
STS 908
SIMULATOR

STS specialises in the conversion of standard instruments for training purposes. The STS 908 is one of our simulated instruments designed to replicate the response and characteristic of the real TSA PRM 470CS

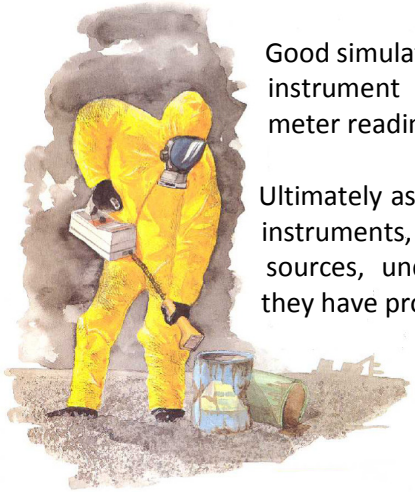
Why Use STS Simulators for Training?

- STS Simulators are able to replicate the ionising radiation field from radioactive sources including characteristic shielding and approximation to the inverse square law; this is not possible to achieve with a real source scenario without undue exposure to the trainee.

- Limiting the exposure of the trainer – if real sources are used, every training session poses an additional cumulative dose to the trainer, while the trainee receives only the dose resulting from the session attended.

- Training with real radiation sources requires a considerable amount of paperwork to move sources, even very small ones, from secure areas to “open field” exercise areas taking time which could be more productively used.

STS simulators solve these problems – the trainer has no cumulative exposure from each training session and the trainee can make serious mistakes without any hazard to anyone.



Good simulators allow training to progress from “no knowledge” to a full understanding of instrument controls, the relationship of source position, Instrument position and meter reading.

Ultimately as simulators cannot recreate the 1:1 million dynamic range of modern survey instruments, trainees will need to make measurements with real instruments and sources, under supervision, but their performance will be much more confident if they have progressed to that point via good simulation training.

Safe Training Systems ltd – Holly house, Maidenhead Road, Wokingham, Berkshire RG40 5RR
Tel: +44 (0)1344 483563 Email: sales@safetrainingsystems.com Web: safetrainingsystems.com Registered in England No.2654899 VAT no. GB572853808

STS 911 VR box source

The radiation emerges from one end in a cone with an angle of approx 120 degrees. Powered by 4 C cells installed in the case.(70x80x140mm)

STS 913VR Hex Source

For training where the source may be approached from any direction, radiation is emitted from each of the six faces allowing detection in all horizontal directions. (150x80mm)

STS 914 Miniature Box Source

Designed so that it can be easily hidden in small gaps in walls floors and ceilings in a training area It is operated by the STS Power Supply with a 5m cable.(45x70x90mm)

STS 912 Pipe Source

The source consists of a plastic tube that can be installed in a plastic pipework mock up. The Source may be orientated in any direction.(150x50mm)

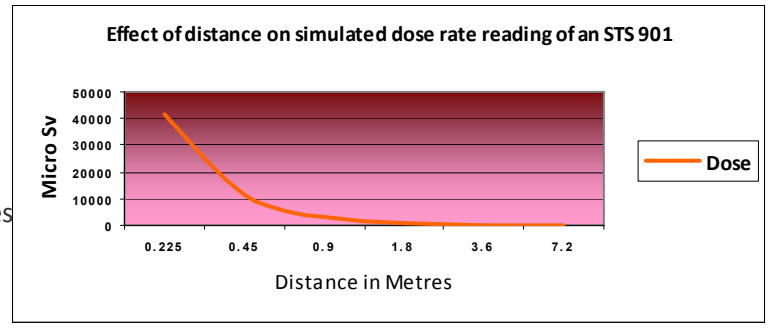
Gamma Technology

This STS system uses a radiofrequency source, concealed in a camouflaged container, to simulate the radiation source. The simulated instrument uses a sophisticated detector to measure the RF signal from the source, and this is then displayed on the meter, in appropriate units. Because the instrument responds DIRECTLY to the signal from the source, the system provides an extremely realistic simulation.

Two major benefits arise from the use of radio signals in this way - the system obeys the inverse square law, thus simulating ionising radiation, and secondly, the shielding properties of materials affects the simulated radiation in a similar way to ionising radiation.

Applications of the Gamma System

The instrument response follows the inverse square law - Time-and-distance shielding may therefore be demonstrated and exercises run where the importance of this parameter can be emphasised to the trainee.



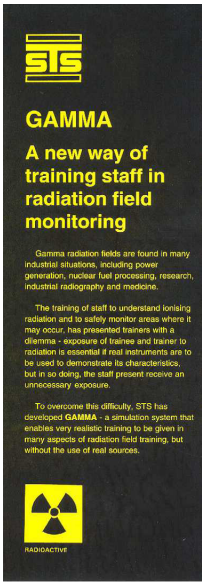
The shielding characteristics of materials can be demonstrated - Concrete blocks will completely absorb the signal, thick wood will reduce it considerably, but thin wood or plastic will show little attenuation. Exercises involving these shielding characteristics may be undertaken in real buildings with the GAMMA system, when the signal response will be comparable to a real source.

The Polar Response of the survey instrument is similar to many real survey instruments - this allows the trainee to be instructed in search techniques which rely on the directional response of the instrument.

Dosimeter training is based on the use of real dosimeters - Understanding the functions, modes of operation, and alarm signals of the dosimeter is made easy with simulators which incorporate real dosimeters, but respond to simulated sources.
Simulators may be used to evaluate a hazardous procedure - The survey instrument and dosimeter can be used to examine alternative procedures to accomplish a task involving work in high radiation fields, allowing optimisation to be achieved without any exposure to ionising radiation.

Simulators provide an ideal way of testing and qualifying staff - Staff may be set real problems to resolve as part of their test or qualification for a certain job function. Examples could include finding a lost source, limiting their exposure by time-and-distance shielding, or performing a task without exceeding a certain dose.

We are always happy to look at new instruments and are able to bespoke instruments and sources to customers requirements. For more information or to find your nearest distributor please visit our web site at www.safetrainingsystems.com



Safe Training Systems ltd – Holly house, Maidenhead Road, Wokingham, Berkshire RG40 5RR
Tel: +44 (0)1344 483563 Email: sales@safetrainingsystems.com Web: safetrainingsystems.com Registered in England No.2654899 VAT no. GB572853808