Development of the STS Safe-Series

The STS Safe-Series *has been developed in conjunction with Reading University and the Technology Strategy Board.*

The development remit was to produce a generic series of instruments suitable for all users across the Nuclear Plant, Homeland Security and Emergency Services sectors.

The unit has been designed to be cost effective to produce and maintain allowing a lower sales price and cost of ownership.

The system is designed to be modular so that future instruments and sources can be developed to meet customers requirements but still work with the original equipment.

Controls have been kept simple and realistic, with buttons suitable for use in gloved hands , easy to read clear LCD displays and intuitive menu navigation.

The result is a realistic and effective training device within the budget of users from across industry and forms the building blocks to a better training experience.

The STS Development team

Simulation Systems from STS Ltd

- **Contamination Monitors & Probes**
  STS 800 Series

  Thermo Electra

  Ludlum 3

  Rotem Ram Gene 1 MkII

  Thermo CM11

  Liquid spray and powder simulated contaminants

- **Simulated Real Survey Meters**
  STS900 Series

  Thermo FH40GL10

  Thermo FH40G Telepole

  Rotem Ram Gene 1 MkII

  Thermo RO2 & RO20

  Box, mini, pipe, Hexagonal and Collimated

- **Generic Survey Meters**
  STS Safe-Series

  Survey-Safe Meter

  Dosi-Safe Electronic Personal Dosimeter

  Safe-MiniSource simulated source

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PYCKO SCIENTIFIC LTD

Your Alternative To The Obvious

The New

Safe-Series

From Safe Training Systems Ltd

Generic series of ionising radiation survey simulators.

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STS Safe-Series Simulation

The new STS Safe-Series of instruments are a generic family of ionising radiation simulators.

The Instruments are designed to give the user a realistic training experience and to aid their understanding of the relationship between monitoring instruments and radiation fields.

The use of simulators allows trainers to achieve a number of key learning objectives without the need to use real sources. The Survey-Safe features a bespoke detection system to create a near isotropic response. The instrument uses standard AA cells for over 10 hours of constant operation.

Survey-Safe simulated radiation survey meter

- Inverse square law
- Distance & Time considerations
- Shielding and Attenuation
- Procedural response to field levels
- Source location and retrieval
- Establishment of control zones
- Accumulated dose monitoring
- Rehearsal of plant maintenance routines
- Training to reduce time in hazardous areas
- Exposure to simulated high radiation levels for emergency training

Realistic Training

The Safe-Series allows users to bring together both the Survey-Safe meter and the Dosi-Safe electronic personal dosimeter to respond to a single source.

The result is the ability to demonstrate to trainees the relationship between the dose rate seen on their meter and the accumulated dose on their dosimeter. Many users will never have been in a position where their EPD alarms due to a dose alarm threshold being exceeded. With the Safe-Series this can be easily demonstrated without any exposure to trainer or trainee.

Dosimeter Solutions

The STS Dosi-Safe is a simulated electronic personal dosimeter which responds to the Safe-MiniSource. The dosimeter is designed to be easy to use and configure whilst giving a realistic response. The dosimeter features:

- LCD backlit 32 character display
- Audible chirp and alarm function
- LED chirp and Alarm function
- Selectable Alarm Thresholds
- Selectable Background
- Selectable Chirp rate
- Standard AA Batteries

Dosi-Safe Electronic Personal Dosimeter works with Survey-Safe and Safe-MiniSource

Sources

Safe-MiniSource –its small size allows it to be easily hidden during training.

The Safe-MiniSource is designed to be easily hidden to enhance the realism of a training session. It is small enough at just 80x60x40mm to be used in lost source recovery exercises.

The source uses a low powered Radio Frequency device to generate an isotropic field pattern. The source can therefore be approached from any direction with either the Survey-Safe or the Dosi-Safe both of which will respond to the same source.

- Isotropic Field Pattern
- Small size 80x60x40mm
- Fixed activity Level
- Works with both Survey-Safe and Dosi-Safe Instruments
- Standard AAA batteries
- No Radioactive Source handling restrictions or paperwork

Training with simulators demonstrates a companies commitment to the principles of ALARP

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