

Radioactive Source Regulation and Intervention

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Lilo, Georgia

Lilo military training centre

- 1997: 11 Georgian soldiers developed radiation induced skin lesions and acute radiation syndrome



12 abandoned caesium-137 sources found at various locations:

- in coat pocket
- on building site
- in buildings
- buried in grounds
- in refuse mound
- on soccer pitch

Waste from Litvinenko's hotel bedroom



Goiania, Brazil

produced 3500 cubic metres of radioactive waste



UK – outline of regulation

- ➔ Based on International Atomic Energy Agency and European Union
- ➔ Different legislation in England and Wales, Scotland and Northern Ireland but same standard
- ➔ Environment Agency and its equivalents in Scotland and Northern Ireland enforce regulations
- ➔ Transport security regulated separately by Office of Nuclear regulation (ONR)
- ➔ MOD outside legal base – managed separately

Principles of source safety

- ➔ ICRP framework: justification, optimisation and limitation
- ➔ Accountancy and record keeping
- ➔ Trained users
- ➔ Safe storage
- ➔ Labelling and identification
- ➔ Preparation for accidents

Principles of source security

- ➔ The overall objective is to establish security measures proportionate to the potential hazard from the sources in use using the principles of:
 - ➔ Deter
 - ➔ Detect
 - ➔ Delay
 - ➔ Respond
- ➔ Security measures proportionate to hazard using source categorization – 5 categories

IAEA

- ➔ IAEA documents are international recommendations intended for use in all IAEA member states
- ➔ IAEA Code of Conduct on Safety and Security of Radioactive Sources - 2004



- ➔ Interpreted into a UK Security Book – 3 editions – referred to in user's permit