School of Radiological Safety Studies
SCHOOL OF RADIOLOGICAL SAFETY STUDIES

Mission:
- R&D on radiation detection systems and dosimetry
- Impact assessment of radioactivity releases (integrated with GIS)
- Nationwide Radiation background mapping
- Safety of radioactive/ Nuclear Material
- Emergency preparedness and response
- Medical management of radiation emergencies
- Field exercises on radiological safety and emergency response

Programme Modules:
- Formal Education, Training and public awareness
- Response to RDD, RED and other radiological emergencies
- Radiation Mapping by mobile monitoring systems
- Source search, detection, identification, assessment and recovery
- Lessons learned from nuclear and radiological accidents
- Studies on dispersion of atmospheric and aquatic releases
Indigenisation of systems for:
- Searching of orphan sources
- Assessment of large area contamination
- Detection of smuggling/inadvertent movement of radioactive sources/nuclear materials
- Scrap/cargo/vehicle monitoring

Portable and mobile Systems

Radiation Detection Systems

Limb Monitor
Portal Monitor
Cargo Monitoring

Systems for Entry & Exit Ports of Country
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ERCs - DAE

Mumbai - BARC
(Nodal ERC)
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Direct Methods/ In-vivo:
- Radioactivity measurements (Whole Body/Organ-Specific)

Indirect Methods/ In-vitro:
- Excreta monitoring.

**Biological dosimetry:**
Quantitative estimation of accidental or suspected over exposures using chromosome aberration (CA) / dicentric formation in biological samples eg., blood.
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Training Programs Conducted:

Courses on response to Radiation Emergencies:
- First Responders to Nuclear and Radiological Emergencies including Training Of Trainers (TOTs)
- Management of Crimes scenes involving Radioactive material for forensic experts
- Prevention and Response to Malicious Acts involving Radioactive Material in Major Public Events (MPE)
- Medical Management of Nuclear and Radiological Emergencies

Certification courses:
- Radiological Safety officers ‘RSO’
- Diploma in Radiation Medicines (DRM) & Medical Radioisotope technology (DMRIT),
- Radiation Therapy Technologists, Radiography Testing, Nucleonic Gauges and
- Operators of Radiation Processing Facilities

( ~ 45 courses per year)
Training conducted on Radiological safety:

- National Disaster Response Force (NDRF)
- State Police
- Fire Fighters
- Civil Defence
- DAE-ERTs
- Medical Professionals, Paramedical
- Import/Export Agencies, Frontline Officers
- RSO for Nuclear Facilities, Medical Institutes, Industries and Research
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Ensuring “Radiological Security & Safety during Commonwealth Games
Training courses for the FIRST Responders to Nuclear/radiological emergencies (NDRF, Police, Fire Brigade & Civil Defence)

How to handle a suspected ‘RDD’ or ‘RED’

Portable Personal Decontamination Unit

Field exercises during ‘First Responders training on ‘Response to nuclear and radiological emergencies’

Development of First Responders for Response Capability at National Level