The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

Stephen Long

Mission and Objectives

OUR MISSION:

Protection of people and the environment from the harmful effects of radiation

Protect the public, workers, and the environment from radiation exposure

Promote radiological and nuclear safety and security, and emergency preparedness

Promote the safe and effective use of ionising radiation in medicine

Ensure effective and proportionate regulation and enforcement activities

Structure Carl-Magnus Larsson **Medical Radiation** Regulatory Radiation Health **Corporate Services** Office of the CEO Services Services Services 130 Personnel Assessment & Regulatory Medical Imaging Advice • 2 Campuses: Monitoring and Radiotherapy **Facility Licensing** Melbourne Response Sydney **Australian Clinical** Radiation **Source Control Dosimetry Service** Protection Services Continuous

Monitoring and Emergency Response

- Radiation Monitoring Networks
 - CTBT Radionuclide Monitoring Stations
 - Australian UV Monitoring Network
- Instrumentation and Measurement Systems
 - CTBT Radionuclide Laboratory
 - Radon Chamber
 - Laboratory Instruments
 - HPGe Gamma-spectrometers
 - Liquid Scintillation Counters
 - Alpha-spectrometers
- Emergency Response
 - In Situ measurement capabilities
 - Centralised GIS for decision-support

- Radiochemistry Laboratory
 - Sample Preparation
 - Fusion System
 - Microwave digestion
 - Eichrom resin extraction systems
 - Electrodeposition
 - Autodeposition



Assessment and Advice

- Health Consequences
- Dose Assessment
 - ARGOS
 - RESRAD
 - IMBA
 - ERICA
- Radiation Protection Best Practice
- Australian National Radiation Dose Register

Total Dose Rate of plume from incident site



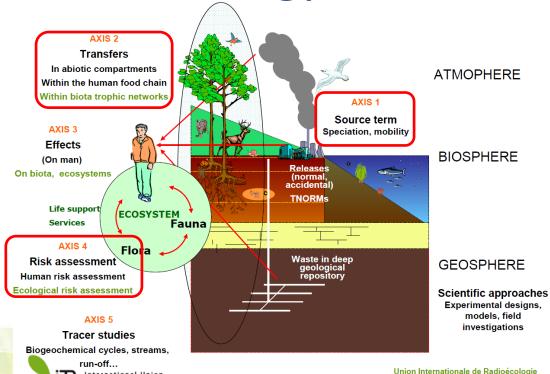


Work in Radioecology

of Radioecology

To protect the public from the harmful effects of radiation exposure, ARPANSA requires up-to-date scientific knowledge to inform its regulatory activities and to provide evidence-based expert advice. Engage with:

- International Atomic Energy Agency (IAEA)
- the International Commission on Radiological Protection (ICRP)
- United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)
- the World Health Organization (WHO)
- the International Commission on Non-Ionizing Radiation Protection (ICNIRP)



International Union of Radioecology

Projects Involving the Source Term

- Measurement of Caesium and Strontium in seawater
- Collection of dry/wet atmospheric deposition
- Measurement of Radon
- Development of measurement protocols for radiological emergencies

Development of Reference Accident scenarios







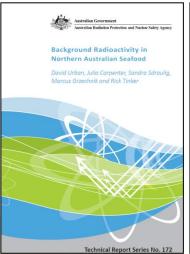


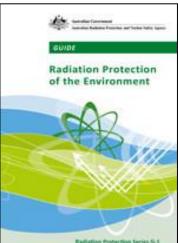
Projects Involving Transfers

- Measurement of radionuclides in foodstuff
- Development and promulgation of modelling tools

National guide for Radiation Protection of the Environment







Projects Involving Risk Assessments

- Evaluation of radiological component of Environmental Impact Statements
 - Only when proposal involves a 'nuclear action' under the Australian Environment Protection and Biodiversity Conservation Act (e.g. Uranium mining)
- Development of system to assess application for construction and operation of Low Level Radioactive Waste Repository
- Evaluation of risk associated with wearing "Scalar Energy Pendant"



THANK YOU

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