Radiological Protection of the Environment

at the OECD Nuclear Energy Agency

Dr George Brownless
Dr Ted Lazo
Introduction

• NEA: 28 industrialised member states across Europe, America, Asia/Pacific (85% world’s installed nuclear capacity)

• Committee on Radiation Protection and Public Health leads on RP of the environment (links to Nuclear Development, Nuclear Law, OECD Environment Directorate)

• Workshop on the Environment (Taormina, Sicily, 2002)


• Study on legislation providing for RP of the environment

• Study comparing chemical and RP regulation for environmental protection

• Future work…
Workshop on Environmental RP

- Workshop and summary report identified and discussed key issues, including:
  - sustainable development
  - identification of what to protect
  - the definition of detriment
  - the necessary level of regulation
  - an integrated approach to protection
  - use of similar approaches for humans and the environment
  - practical foundations for a system of environmental protection
  - consequences in terms of training
Legislative study of environmental RP

- Looked at >100 legal instruments from 6 member states (covering 3 global regions) + European + International
- Legal instruments generally the same internationally, some separation between RP & others elsewhere
- Lack of clear aim for environmental protection, weaknesses in tools for assessing RP damage to environment: difficult to demonstrate full regulatory control
- Key process is trade off between costs and benefits…
Key element: the trade-off

- Economic success at expense of environment
  - Need to show harm
  - Risk/ALARA - allow but optimise based on harm
  - Best Available Techniques - allow but need best reduction regardless of harm
  - Precautionary - not allowed unless confident of no/low harm
  - Absolute - not allowed
  - Pristine environment

- Need to show no harm

General trend
Chemical vs RP regulation to protect the environment

- Based on legal requirements but also looked at policy analysis, technical guidance
- **Key difference:** Radioactive substances have not been explicitly assessed for environmental effects
- **BUT:** unlikely to change risk management strategy i.e. trade-off (ALARA, BAT)
- Many chemicals: ‘bad’, ‘very bad’ or ‘OK’ for the environment?
- …more emphasis on information gathering (assessment, uses, quantities) + range of regulatory and other instruments deployed: *separation of RP not so strange!*
Future work

• Will continue cooperation and support for efforts by others e.g. IAEA, ICRP (observership at C5)

• Intend to debate RP of the environment at this year’s CRPPPH meeting to agree a way forward.

• Want to promote dialogue and debate to move towards a consensual approach.