



# Nuclear Industry Messages

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# Introduction

- Common Objective:
  - A **consistent** system of radiological protection, with a **clear basis in current science**, providing an effective means to communicate radiation risk to the public.
- Communication between the ICRP and the Nuclear Industry
  - Strategic Level – Main Commission
  - Working Level – via the *Radiological Protection Working Group*

# Overview – Key Areas of Mutual Interest

- Role of the World Nuclear Association and the *Radiological Protection Working Group*
- Key Topics
  - Non-Cancer Effects
  - Emergency Exposure
  - Protection of the Environment
  - Radon
  - Nominal Protection

# Role: *World Nuclear Association and Radiological Protection Working Group*

- *World Nuclear Association...*
  - a nuclear industry trade association representing the whole of the nuclear fuel cycle
- *Radiological Protection Working Group...*
  - a resource of global nuclear industry expertise
  - the 'institutional interface' for supporting the development of the system of radiological protection
  - willing to contribute to ICRP activities at the working level (e.g. participation in ICRP Task Groups)

# Non-Cancer Effects

- The scientific evidence underpinning NCE is continuing to evolve and develop, thus
  - there is a need to gather **more information** and data
  - **time is needed** to consider how non-cancer effects can be integrated into the system of protection
- Nuclear industry is willing to support the work of the ICRP
  - *Working Level – Radiological Protection Working Group* is the mechanism to facilitate this support
  - Initiation of an international project on ‘Non-Cancer Effects’

# Emergency Exposure

- Key Issue: **Transition** from ‘Emergency’ exposure situation to:
  - ‘Existing’ Exposure situations – members of the Public
  - ‘Planned’ Exposure situations – Workers
- The System is **not well understood** by the public, the workers or RP experts, resulting in real impacts:
  - in Japan, application of the 1mSv/y dose reference level for existing exposure situations is doing **more harm than good**

# Protection of the Environment

- The biosphere is not at risk from Radiation at current levels of protection
  - For nuclear installations: it remains true that protection of man assures protection of the environment
- Complexity
  - Any system must be **simple, practical to implement and proportionate** to the risks

# Protection from Radon

- Epidemiological evidence exists for risk of exposure to Radon and this evidence is becoming increasingly coherent
- Validation of the 'dosimetric' model needs to be consistent with the epidemiological evidence
- The Dose Conversion Factor (DCF) for Radon should reflect **radiation risk**, and take care to distinguish it from **Tobacco Smoke risk**, which has a dominating influence on lung cancer incidence



# 'Nominal' Protection

- The Issue - establishing protection criteria for populations with diverse characteristics
- In order for the system of protection to realise its objectives in a practical setting, it must be:
  - **Transparent**
  - **Stable**

# Key Messages

*Our common aim: A **consistent** system of radiation protection, with a **clear basis in current science**, providing an effective means to communicate radiation risk to the public.*

- Non-Cancer Effects

**Time and more information** is needed, the changes are fundamental and could affect the whole system of protection

- Emergency Exposure

**More guidance is needed** on how the ICRP system applies in practice

- Radon

the 'dosimetric' model needs to be validated and consistent with the epidemiological evidence