

# The EMRAS Programme 2006 highlights

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# Current EMRAS status

- **Launched in September 2003 for 4 years (2003-2007).**
- **Three thematic areas:**
  - *Radioactive release assessment;*
  - *Restoration of sites with radioactive residues;*
  - *Protection of the environment.*
- **Seven Working Groups established and operated in 2003-2006.**

# Expected EMRAS outputs:

- Review of modern scientific data used for environmental modelling of radionuclides
- Improvement of models and reduction of uncertainty in their predictions; thereby optimisation of public radiation protection
- Revision of IAEA handbook TRS-364
- Publication of project reports

# EMRAS *modus operandi*

- Annual Combined (Plenary&WG) meetings at IAEA, Vienna (mainly, in fall) accompanied with SC meetings
- Additional WG meetings elsewhere (mainly in spring/summer); more often if feasible
- EMRAS web-site created and news posted regularly: <http://www-ns.iaea.org/projects/emras/>
- Funding of meetings:
  - IAEA – very limited
  - WG sponsors – three groups have got some external funding

# EMRAS near future

- **Working Group Meetings in April – June 2007 in various countries**
- **5<sup>th</sup> Combined Meeting - November 2007 at IAEA HQs, Vienna**
- **One year left: time to start report preparation.**

# Planning for the EMRAS reports

- One report per WG
- All reports in the Agency's TECDOC format
- Additionally – revised TRS-364 in the TRS format
- Draft WG reports for editing – by the last Combined meeting in November 2007
- First draft reports for discussion in WGs – spring 2007
- Template for scenario reports distributed last year

# Generic scenario report layout

1. Background and Objectives
2. Summary of Scenario Description
3. Observations (for scenarios based on experimental data)
4. Model Description
5. Modelling Results and Discussion
6. Summary and Conclusions
  - Appendix A – Scenario Description
  - Appendix B – Model Descriptions

# Generic Model Description

1. Introduction
2. Key Assumptions
3. Modeling Approaches (conceptual and mathematical)
4. Parameter Values
5. Uncertainties
6. Application of the model to the scenario



# IAEA Conference-2007

- IAEA Conference 'Environmental Radioactivity: From Measurements and Assessments to Regulation' to be held on 23-27 April 2007 in Vienna.
- Session 4 'ASSESSMENT OF EXPOSURES AND RISKS', Thursday 26 April, will accommodate reports from all the EMRAS WGs.
- WG leaders are welcome to present WG reports that will be published in the Conference proceedings.
- All the EMRAS participants are welcome to attend.
- Details to be discussed at the SC meeting.

# Update on Environmental Radioactivity Issues



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# Changing scene in discharge control: ICRP

## *ICRP is developing new basic recommendations to be completed in 2007:*

- *No change of human dose limits for practice is being considered.*
- *Biota protection issues will be considered explicitly but not in detail.*
- *More attention to be focused on compliance with dose constraints, not limits.*
- *Constrained optimization remains the core methodology for establishing the discharge limitations.*
- *Optimization process becomes less formal with regard to cost-benefit analysis.*
- *The critical group will be replaced with the 'representative individual'.*

# National practices of discharge control

- *Not always follow constrained optimization procedure for a critical group:*
  - *hypothetical persons located at the site boundary are considered as exposure subjects;*
  - *both cost-benefit analysis (CBA) and more flexible (MAA) are being used as the optimization technique*
  - *best available technique (BAT) oriented on technological capabilities is being used.*
- *The diversity of national practices is being currently analyzed by the IAEA aiming to account for it in the safety documents to be developed*

# Biota protection - ICRP

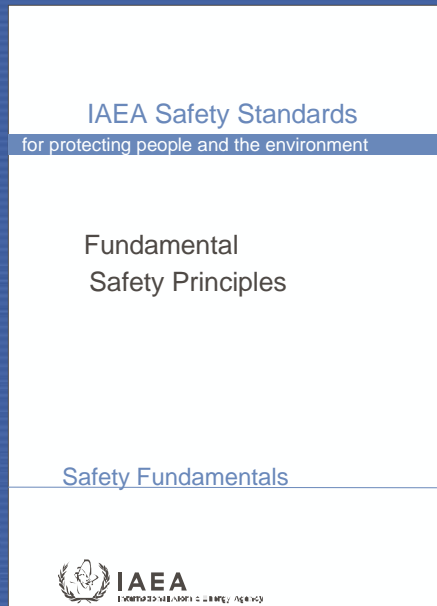
- New activities:
  - ICRP Publication 91 published;
  - Special ICRP Committee 5 established since 2005;
  - Committee 5 develops recommendations on selection and characterization of reference plants and animals.

# Biota protection - IAEA

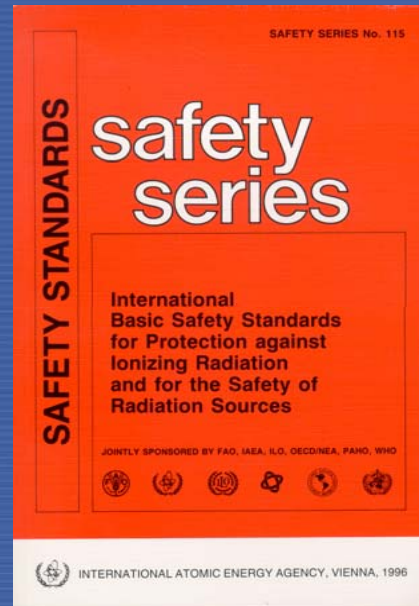
- Part of the regular programme:
  - Since 2001, three major meetings;
  - TECDOCs 1091 and 1270 published;
  - Stockholm Conference, 2003, “... *strongly supported the development of a framework for environmental radiation protection.*”
  - Plan of Activities on the Radiation Protection of the Environment approved by the BoG in 2005.
  - Coordination Group started early this year.

# IAEA safety documents in the area of discharge control

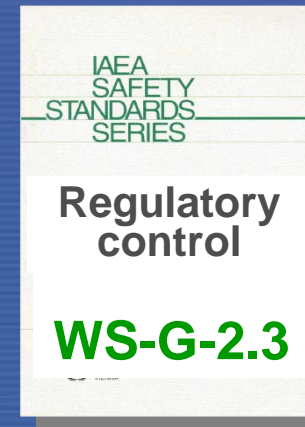
## Fundamentals



## Requirements



## Guides



## Reports

**Generic Models  
for Use in  
Assessing the  
Impact of  
Radioactive  
Discharges, SR-19**

**Monitoring and  
Surveillance of  
Residues from the  
Mining and  
Milling, SR-27**

**Surveillance and  
Monitoring of  
Near Surface  
Disposal Facilities  
for Radioactive  
Waste, SR-35**



# Conclusions

- The EMRAS project is in its final phase, report preparation becomes a priority.
- There are substantial new developments in the area of radiation protection of the public and the environment from ionizing radiation.
- The EMRAS project aims at adequate technological support of the new developments in the area of environmental radioactivity.