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Australian Radiation Protection and Nuclear Safety Agency

Where to with the Code of Conduct on the Safety of Research Reactors?



John Loy

**CEO of the Australian Radiation Protection &
Nuclear Safety Agency**

International Conference on Research Reactors, Sydney, November 2007



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A History of the Code of Conduct (1)

- INSAG letters to Director General in 11/ 1998 and 4/ 2000
- Issues:
 - Age of research reactors;
 - research reactors not operating, but not been decommissioned; and
 - research reactors in countries without appropriate regulatory authorities
- Proposed RR Protocol to Convention on Nuclear Safety

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A History of the Code of Conduct (2)

- GC Resolution in 2000

- “requests the Secretariat ... to continue work on exploring options to strengthen the international nuclear safety arrangements for civil research reactors, taking due account of input from INSAG ...”



- Working Group in May 2001 recommended international action plan for research reactors
 - preparation of a Code of Conduct that would clearly establish the desirable attributes for management of Research Reactor safety
- BOG/GC in September 2001 endorsed proposed plan, including preparation of Code of Conduct

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A History of the Code of Conduct (3)

- **Opened Ended Group met:**
 - **May 2002 (40 people from 22 countries)**
 - **December 2002 (50 people from 28 countries)**
 - **October 2003 (15 people from 11 countries)**
- **Considered by BOG in March 2003 and adopted by BOG in March 2004 and GC in September 2004**



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What is a Code of Conduct?



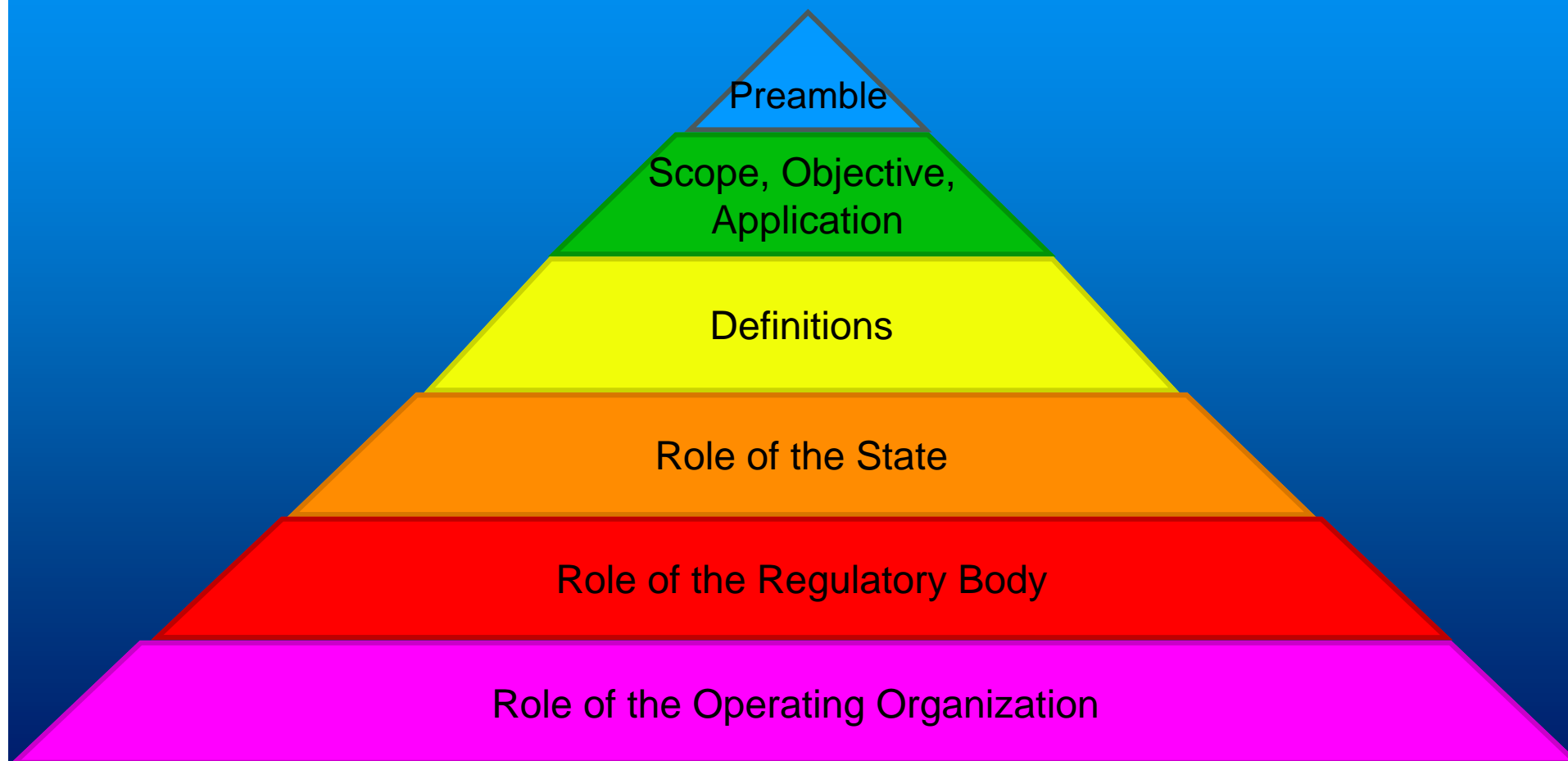
- “.... a Code of Conduct is a legal instrument of a non-binding nature prepared at the international level to offer guidance to States for the development and harmonization of policies, laws and regulations. A Code of Conduct stands alone and apart from other documents, such as the IAEA safety standards”.
- **Should not Shall statements**
- Successive GCs encourage States to apply the guidance in the Code



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Structure of the Code



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Major Points in the Code (1)

- Safety, not physical protection
- A high level of safety in research reactors through national measures and international cooperation
- Encourages appropriate use of **IAEA safety standards**
- A **graded approach** to application commensurate with hazard potential and strong nuclear safety culture.



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Major Points in the Code (2)

- Role of the state in:
 - legislative and regulatory framework
 - establishing and supporting regulatory body
 - role of the public and other bodies in regulatory system;
 - Governmental emergency response and intervention
 - ensuring a system for financing safe operation, safe extended shutdown and decommissioning
 - reviewing safety of existing Research Reactors
 - ensuring safe management of Research Reactors in extended shutdown with no effective operating organization



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Major Points in the Code (3)

- Regulatory Body and Operating Organizations have mirror provisions covering:
 - assessment and verification of safety
 - financial and human resources
 - QA
 - human factors
 - radiation protection
 - emergency preparedness
 - siting
 - design, construction and commissioning
 - operating, maintenance, modification and utilization
 - extended shutdown
 - decommissioning



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Major Points in the Code (4)

- The **regulatory body** should
 - have a process of issuing authorizations for all stages of the life of the research reactor
 - should undertake inspections and assessments;
 - enforce applicable regulations and authorizations;
 - review and assess safety submissions
 - make available, as appropriate, its regulatory requirements and decisions and their basis.
- The **operating organization** should establish policies that give safety matters the highest priority, promote a strong safety culture and be implemented within a management structure having clear divisions of responsibility and communication – a management system



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Role of the IAEA



- Disseminate Code
- Assist States, upon request, in implementation
- Other services
 - information
 - safety review
 - technical standards
 - advice and assistance



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Implementing the Code

- Stands as a high level definition of international best practice
- Shape the further development of IAEA safety standards
- Used by the Agency in missions and project and supply agreements

BUT

Needs commitment by States and information exchange mechanisms



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Where to Next?

- The CNS and Joint Convention have established the process of formal review process
 - Country reports
 - Formal Q and A etc
- Meeting to 'share information' on implementation of the Code of Conduct on Sources
- Third review meeting of CNS in 2005 proposed open ended meeting to discuss how best to assure effective application of the RR Code of Conduct
- Open-ended meeting in December 2005 (31 Countries)



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Information Exchange on the Code

- OE Meeting emphasized the importance of information exchange
- Needs to be flexibility and informality
 - The full 'bells and whistles' of formal country reports etc may deter countries who most need assistance in implementing the Code
- Proposal for periodic meetings to discuss topics arising from Member State documents (**not** country reports)
- Also discuss difficulties and the international or Agency assistance to allow a country to achieve full conformance with the Code



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Next Steps

- Regional meetings conducted for Africa, Eastern Europe, and Asia (next presentation)
- International meeting for 2008
- GC 51 resolution:
 - Continues to endorse principles and objectives of the Code
 - Encourages MS with RR to apply the guidance in the Code
 - Looks forward to outcome of international meeting on Code
- And looks forward to outcomes of this Conference



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Some thoughts for the international meeting

- **IAEA input** – a review of topical issues in RR safety
 - Suggest this Conference call for this input
- **Policy issues:**
 - Relationship between the State, the regulatory body and the operating organization
 - What is the ‘graded approach’ in practice?
 - Nuclear safety culture
 - RRs in extended shutdown
- Discussion of real issues of **implementation** of Code



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Conclusion

- Non-binding nature of the Code + informal processes may allow the issues to be effectively addressed
- Research reactor safety has been a nagging issue for NS community
 - The Code offers a way forward!



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**THANK YOU FOR YOUR
ATTENTION**

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