



# ***Workshop on Application of the Code of Conduct on the Safety of Research Reactors***

## ***Module 1 – Introduction to the Code***

***L.1.1 - History, Rationale and Process for Development***

***L.1.2 - Scope and Contents of the Code***

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Office of Science Laboratory  
Operated by The University of Chicago



## ***L.1.1 – History, Rationale and Process for Development***

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- **Significant Events**

- Nov 1998, INSAG letter to Director General
- April 2000, INSAG letter to Director General
- Sept 2000, General Conference Resolution GC(44)/RES14
- May 2001, Working Group Meeting
- Sept 2001, General Conference Resolution
- May 2002, Open-Ended Working Group Meeting
- Dec 2002, Open Ended Working Group Meeting
- March 2003, Board of Governors Meeting
- Oct 2003, Working Group Meeting
- March 2004, Board of Governors Meeting
- Sept 2004, General Conference

## ***L.1.1 – History, Rationale and Process for Development***

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- **Nov 1998, INSAG Letter to IAEA Director General**
  - The International Nuclear Safety Advisory Group identified concerns for research reactor safety
  - INSAG recommended that the Agency assess its projects within a structured approach in order to assign clear priorities commensurate with safety relevance
  - In particular, INSAG recommended that high priority be given to reviewing the condition of shutdown reactors

## L.1.1 – History, Rationale and Process for Development

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### **April 2000, INSAG Letter to the IAEA Director General**

- Noted that “... in spite of a prompt reaction by the Secretariat ... the problem remains very serious”
- Specific concerns included ageing and ageing management, safety culture, shutdown reactors not undergoing proper decommissioning and regulatory supervision
- INSAG suggested the development of a Protocol to the Convention on Nuclear Safety or some similar legal instrument as a way of establishing a better, international safety framework for research reactors
- It recommended urgent action in two areas
  - *Proper decommissioning of research reactors that are shutdown and not decommissioned*
  - *Thorough review of the safety of the older research reactors not under the control of an independent national regulatory authority*

## ***L.1.1 – History, Rationale and Process for Development***

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- **IAEA Research Reactor Data Base as of August 2000:**
  - 20 Planned and under construction
  - 284 Operational
  - 258 Shutdown
  - 109 Decommissioned
  - 671 Total
- **The term “extended shutdown” was used to characterize research reactors that were shut down indefinitely with no plans for return to operation or decommissioning**

## ***L.1.1 – History, Rationale and Process for Development***

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- **Sept 2000, General Conference Resolution GC(44)/RES14**
  - The General Conference requested the Secretariat “within its available resources, to continue work on exploring options to strengthen the international nuclear safety arrangements for civil research reactors, taking due account of input from INSAG and the views of other relevant bodies”



## ***L.1.1 – History, Rationale and Process for Development***

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- **May 2001, Working Group Meeting - Considerations**
  - ***Optional Binding Arrangements***
    - An amendment to the Convention on Nuclear Safety
    - A new Convention on the Safety of Research Reactors
    - A Protocol on the Convention on Nuclear Safety
    - Unilateral declarations by States
  - ***Optional Non Binding Arrangements***
    - A Code of Conduct
    - General Conferences resolutions

## L.1.1 – History, Rationale and Process for Development

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- **May 2001, Working Group Meeting - Recommendation**
  - The Agency should consider establishing an international action plan for research reactors which includes:
    - *Assessment survey of RR safety*
    - *Code of Conduct on the Safety of RRs; establish desirable attributes of management of RR safety*
    - *Explore means to strengthen the monitoring of RR safety*



## L.1.1 – History, Rationale and Process for Development

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- **Sept 2001, General Conference Resolution GC(45)/RES/10.A**
  - Requested the Secretariat to develop and implement, in conjunction with Member States, an International RR Safety Enhancement Plan
    - *Conduct of a **survey** of research reactor safety in Member States*
    - *Preparation of a **Code of Conduct** on the safety of research reactors with a view to establishing the desirable attributes for management of research reactor safety*
    - ***Exploration of possible means to strengthen the system** for monitoring the safety of research reactors, taking account of the experience of organizations working in other fields*

## ***L.1.1 – History, Rationale and Process for Development***

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- **May 2002 and December 2002, Open-Ended Working Group Meetings**
  - All Member States having a RR were invited to send a legal and a technical representative
  - An Open Ended Working Group of Legal and Technical Experts prepared a draft Code in May 2002
  - A second Open Ended Working Group meeting completed drafting of the Code in December 2002
  - 66 experts, mostly technical, from 24 Member States participated
  - Recommendation of the working group was presented to the BoG in GOV/2003/7, 6 February 2003

## ***L.1.1 – History, Rationale and Process for Development***

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- **March 2003, Board of Governors Meeting**
  - Code was presented to the Board of Governors for adoption
  - The Board requested that the Code be circulated to all Member States for consideration and comment
  - Member States submitted written comments
  - The Secretariat compiled comments and convened a Working Group of experts to redraft the Code in light of Member State comments

## L.1.1 – History, Rationale and Process for Development

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- **Oct 2003, Working Group Meeting**

- A Working Group of 15 experts from 11 Member States resolved comments such as:
  - *Non-binding nature of a Code of Conduct*
    - “Should” statements replaced “shall” statements throughout
  - *Relation between application of the Code and Technical Cooperation grants*
    - Statement linking the two was removed
  - *Reporting by Member States on the application of the Code*
    - Deferred to the wording of the General Conference resolution
  - *Numerous individual comments were addressed such as a graded approach to application of the Code, import/export provisions and potential for transboundary accident effects*

## ***L.1.1 – History, Rationale and Process for Development***

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- **Final Enactment of the Code of Conduct**
  - The draft Code, as revised by the October 2003 Working Group, was resubmitted to Member States for comments to be resolved by the Secretariat
  - Board of Governors adopted the Code at its 8 March 2004 meeting and recommended endorsement by the General Conference
  - Code is on the agenda for endorsement by the 20-24 September 2004 General Conference