

**International Atomic Energy Agency**

# **Contribution of the IAEA to Nuclear Installation Safety**

- General Context
- Conventions and Codes of Conduct
- IAEA Standards and Services
- Other Instruments

# General Context (1)

- Renewed interest for nuclear energy
  - Growth by 25 – 95% by 2030
  - Different situations:
    - Countries which never stopped construction
    - Countries which stopped construction of new plants, but will resume
    - Newcomers
- Industrial globalization and increased economic competition
  - Constructors/utilities became international players
  - Competition to sell new plants and electricity



## General Context (2)

- Increased stakeholders' concern for environment, safety, security and transparency
  - Safety, security and transparency are seen as mandatory conditions for use of nuclear energy
- Clear perception that safety and security are international challenges requiring world-wide cooperation
  - 5 International Conventions (legally binding)
  - 2 Codes of Conduct (legally nonbinding)
  - IAEA safety standards and service
  - Other instruments on nuclear security



# Conventions and Codes of Conduct (1)

## Existing Conventions

- Convention on Nuclear Safety
- Convention on Physical Protection of Nuclear Materials
- Convention on Early Notification
- Convention on Emergency Assistance
- Convention on Spent Fuel and Radioactive Waste Management (“Joint Convention”)

## Conventions and Codes of Conduct (2)

### Convention on Nuclear Safety

- Nuclear Power Plants Only
  - 61 Contracting Parties
  - Triennial Meeting
  - National Reports
- Power through Peer Pressure
- Vision on Increased Transparency



# Conventions and Codes of Conduct (3)

## Codes of Conduct

- Code of conduct on the Safety of Research Reactors
- Code of Conduct for the Safety and Security of Radioactive Sources



# IAEA Safety Standards and Services (1)

- IAEA has statutory obligation to develop international standards of safety

Article III.A.6 of Statutes:

- To establish or adopt standards of safety for the protection of health and minimization of danger to life and property
- To provide for the application of these standards



# IAEA Safety Standards and Services (2)

## Status of the IAEA Safety Standards

Safety Standards are:

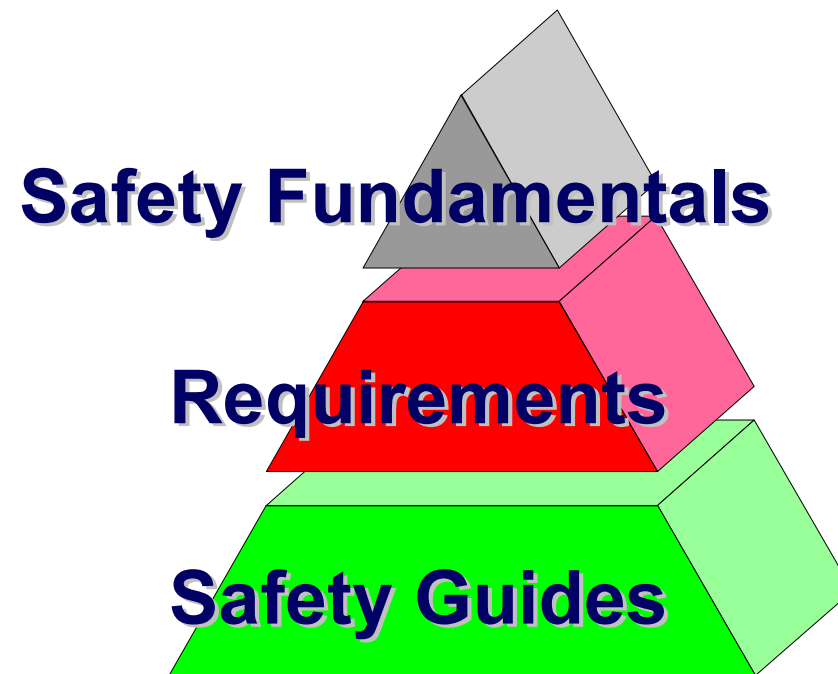
- Non binding on Member States but may be adopted by them
- Binding for IAEA's own activities
- Binding on States in relation to operations assisted by the IAEA
- Binding on States wishing to enter into project agreements IAEA





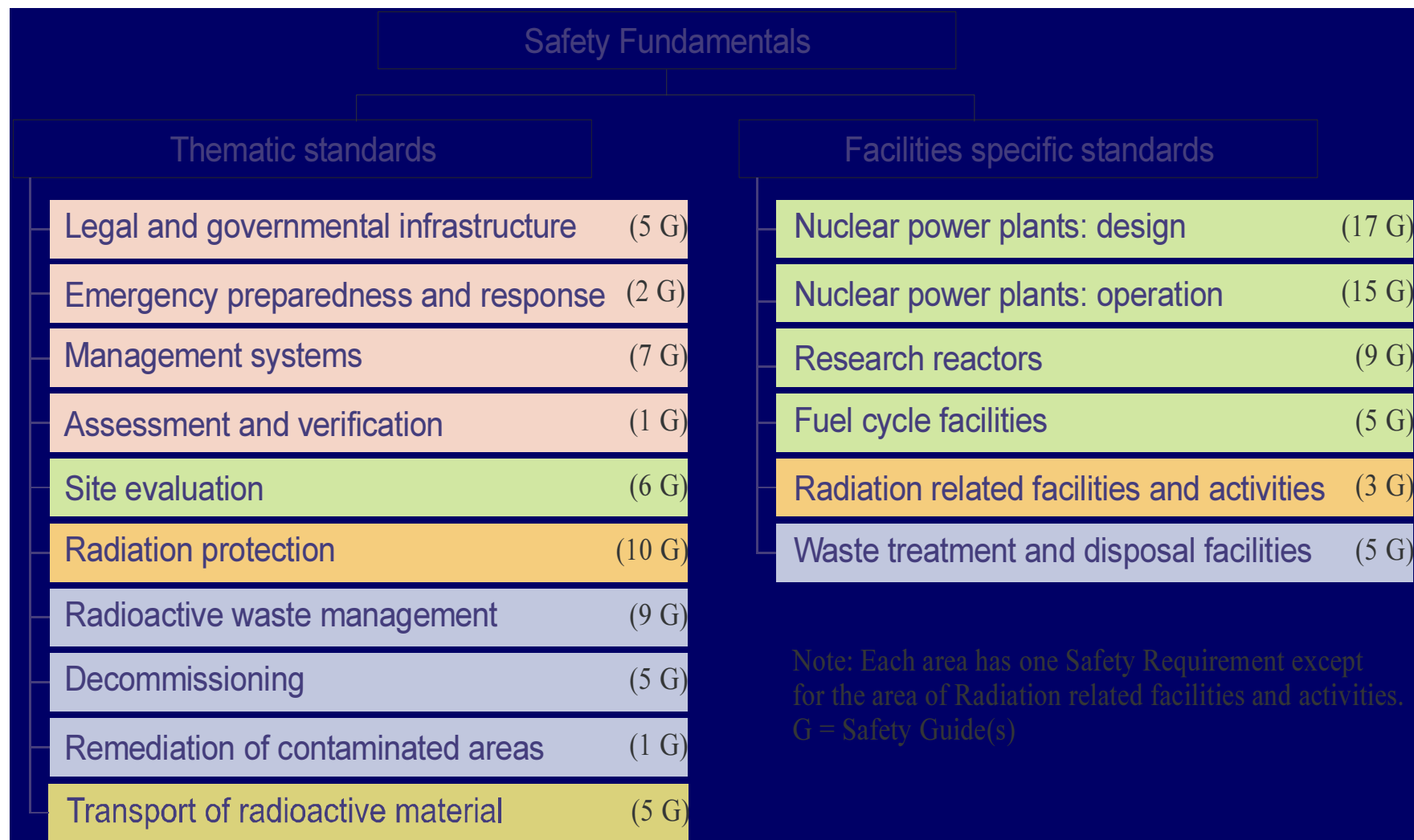
# IAEA Safety Standards and Services (3)

## Hierarchy of the Safety Standards



# IAEA Safety Standards and Services (4)

## Structure of Safety Standards



# IAEA Safety Standards and Services (5)

## Examples of Safety Standards



# **IAEA Safety Standards and Services (6)**

## **Core Processes for Safety Review Services**

- Peer reviews performed upon request of Member States
- Guidelines based on best international practices
- Phased approach
  - Self assessment
  - Preparatory mission
  - Main mission
  - Follow-up mission



# IAEA Safety Standards and Services (7)

## Areas for Services

- Regulatory Framework
  - Operational Safety
  - Technical Safety
  - Safety Management/Culture
- 
- Modular approach to meet needs of Member States

# Other Instruments

## Training

- Identification of competence gaps and training needs: IAEA proposes a systematic approach with associated guidelines
- Training material (CD) developed for all Safety Requirements and most standards (covering subjects related to new power plant projects)
- Training courses: Basic and expert training available  
Ex: Basic professional training course, Lithuania, 8-19 September 2008



## **Other Instruments**

### **Networking**

- Permanent structures for sharing training courses and experience of training are promoted on a regional basis.

Asian Network is an example.

