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COMMITTEE ON THE PEACEFUL USES OF
OUTER SPACE

Scientific and Technical Subcommittee

Forty-third session

Vienna, 20 February - 3 March 2006

Agenda item 9

Use of Nuclear Power Sources in Outer Space

**JOINT UNITED NATIONS/INTERNATIONAL ATOMIC ENERGY
AGENCY TECHNICAL WORKSHOP ON THE OBJECTIVES, SCOPE
AND GENERAL ATTRIBUTES OF A POTENTIAL TECHNICAL SAFETY
STANDARD FOR NUCLEAR POWER SOURCES IN OUTER SPACE
(VIENNA, 20-22 FEBRUARY 2006)**

Session 5. PRESENTATIONS PERTINENT TO OBJECTIVE I.B.

Presentation on "IAEA Safety Standards"

Note by the Secretariat

1. In accordance with paragraph 16 of General Assembly resolution 60/99 of 8 December 2005, the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space will organize, jointly with the International Atomic Energy Agency, a technical workshop on the objectives, scope and general attributes of a potential technical safety standard for nuclear power sources in outer space, to be held in Vienna from 20 to 22 February 2006.

2. The presentation contained in the present conference room paper was prepared for the joint technical workshop in accordance with the indicative schedule of work for the workshop, as agreed by the Working Group on the Use of Nuclear Power Sources in Outer Space during the intersessional meeting held in Vienna from 13 to 15 June 2005 (A/AC.105/L.260).



IAEA SAFETY STANDARDS

Luis Lederman
Department of Nuclear Safety and Security



IAEA
International Atomic Energy Agency

Norwegian Nobel Committee Citation

“The... Committee has decided that the Nobel Peace Prize for 2005 is to be shared... between the IAEA and its Director General... for their efforts to prevent nuclear energy from being used for military purposes and to ensure that nuclear energy for peaceful purposes is used in the safest possible way.”



International Atomic Energy Agency

- **Agency's Three Pillars**
 - Verification
 - Nuclear Technology
 - Safety and Security

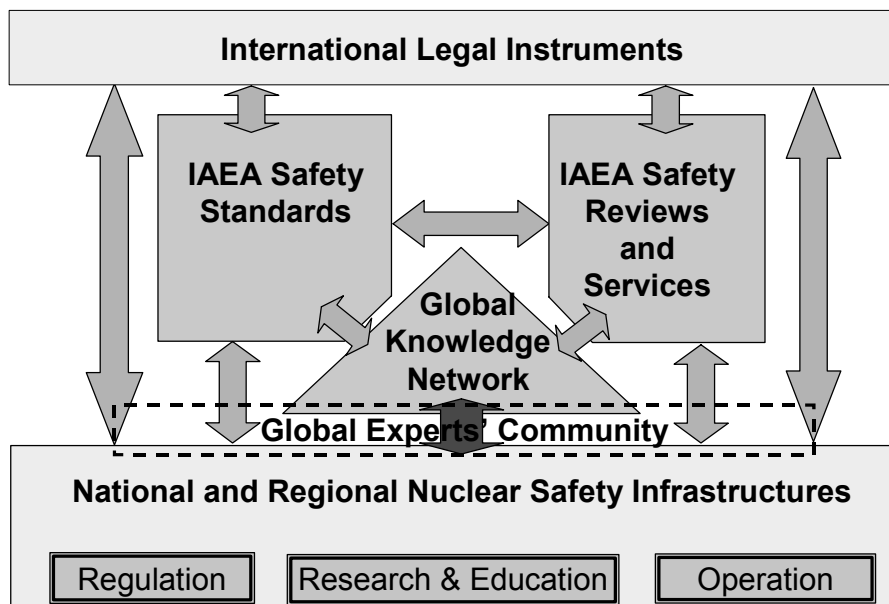


Global Safety Perspective

- Globalization of safety, technology, business, communication, terrorism
- Safety concerns despite the high safety record (no room for complacency)
- New security concerns after 9/11
- Safety as a precondition for the use of nuclear technology
- Need to increase outreach and stakeholders involvement
- Global Nuclear Safety Regime



Global Nuclear Safety Regime



IAEA Statute (Article III.A.6)

- “To establish or adopt... [in consultation with...] standards of safety for the protection of health and minimization of danger to life and property”
- “...and to provide for the application of these standards”



Safety Standards (cont.)

- Not legally binding on Member States but may be adopted by them
- Binding for IAEA’s own activities
- Binding on States in relations to operations assisted by the IAEA
- Binding on States wishing to enter into project agreements IAEA



Categories of Standards

Safety Fundamentals

- Set out principles of protection and safety

Safety Requirements

- Establish requirements: what has to be done ('shalls') to apply these principles in meeting objectives

Safety Guides

- Set out recommended ways ('shoulds') of meeting the requirements



SAFETY STANDARDS HIERARCHY

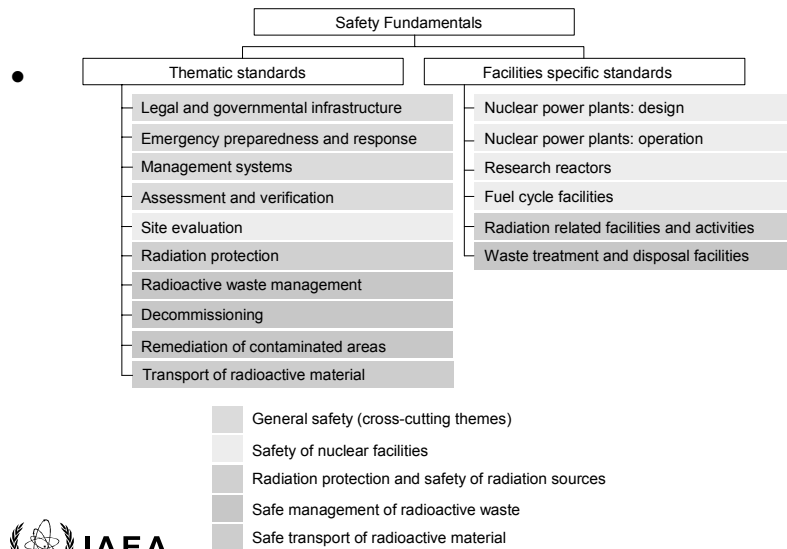
Safety Fundamentals

Safety Requirements

Safety Guides



STRUCTURE OF THE STANDARDS



Process Flow for the Development of IAEA Safety Standards

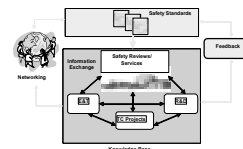


Safety Standards (cont.)

- Notable utilization by MS
 - directly adopted
 - used as reference for review of national standards
- Mechanisms in place to collect feedback from users for periodic revision; through
 - dedicated website
 - safety committees and commission



Application of Standards



- Safety reviews
 - recognized independent and transparent, systematic international peer reviews based on SS
 - impact on safety confirmed by follow-up missions
 - thematic and organizational reviews
 - action plans developed to address mission findings are highly appreciated by recipients and provide focus to TC assistance
 - increasing interest from countries with advanced NP programmes



Outlook

- Consolidation of the GLOBAL NUCLEAR SAFETY Regime
- Development of a global nuclear security framework considering synergies and differences
- Global acceptance and application of IAEA safety standards as a reference for the high safety level in all nuclear activities
- Global safety network for sharing safety knowledge and mutual learning

