

Nuclear Safety and Security in Brief

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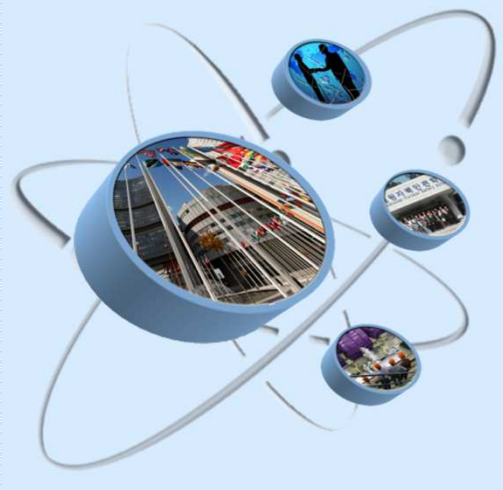
International Atomic Energy Agency

Department of Nuclear Safety and Security:

<http://www-ns.iaea.org/default.asp>

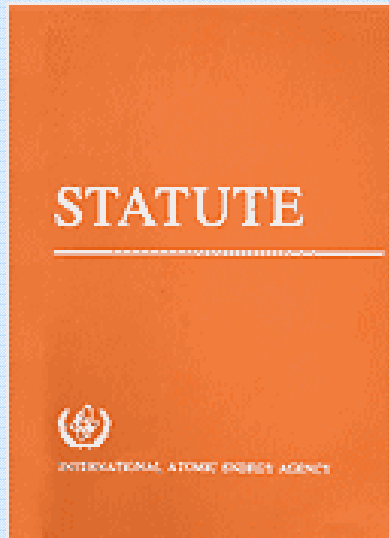


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- Security: from September 11 on
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- Safety Standards and Security Guidance

Role of IAEA



- IAEA statute Article III, A.1
 - “To **encourage and assist research** on, **and development** and practical application of, atomic energy for peaceful uses throughout the world; ...”
- IAEA statute Article III, A.6,
 - “**To establish** or adopt, in consultation ..., **standards of safety** for protection of health and minimization of danger to life and property ... **and to provide for the application of these standards**”

From Chernobyl to Fukushima



- *“...Radioactivity does not respect national boundaries..... Rulesshould be worked out internationally”*
Hans Blix,
former IAEA Director General

A continuous learning experience:

- Improved design & safety of reactors
- Development of safety standards and services
- Department of Nuclear Safety created
- 25 years later: Fukushima



“Fukushima was a wake-up call ... there can be no complacency about safety”

Yukiya Amano,
IAEA Director General

Safety Post Fukushima



*“...It is essential that all of us
- Member States, the IAEA
and other key stakeholders -
maintain our sense of
urgency and our commitment
to implementing the Action
Plan in full.”*

**Yukiya Amano,
IAEA Director General**

March 2011,
accident at
TEPCO
Fukushima
Daiichi nuclear
power plant

To be implemented by:
IAEA Secretariat
Member States
Other relevant stakeholders

September 2011, the
[IAEA Action Plan on
Nuclear Safety](#) was
adopted

12 areas of action to
improve safety

Safety Post Fukushima



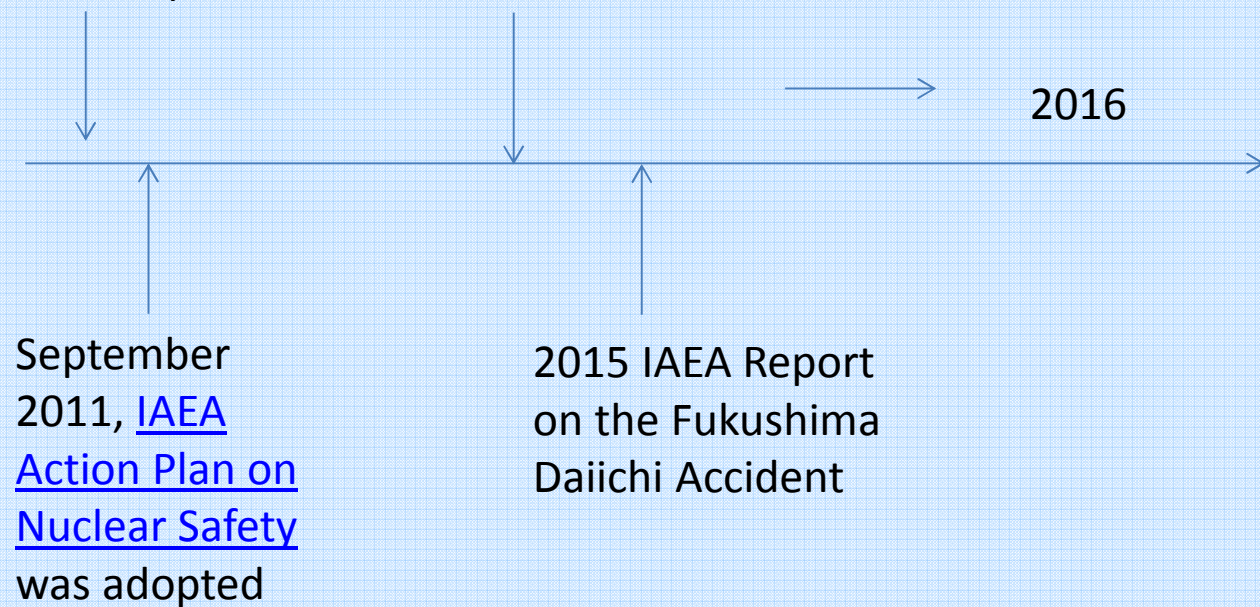
"...Safety First."

**Yukiya Amano,
IAEA Director General**

March 2011,
accident at
TEPCO
Fukushima
Daiichi
nuclear plant

2015 Vienna
Declaration:
a reinforced
commitment

**Safety approach that
integrates & consolidate
lessons**

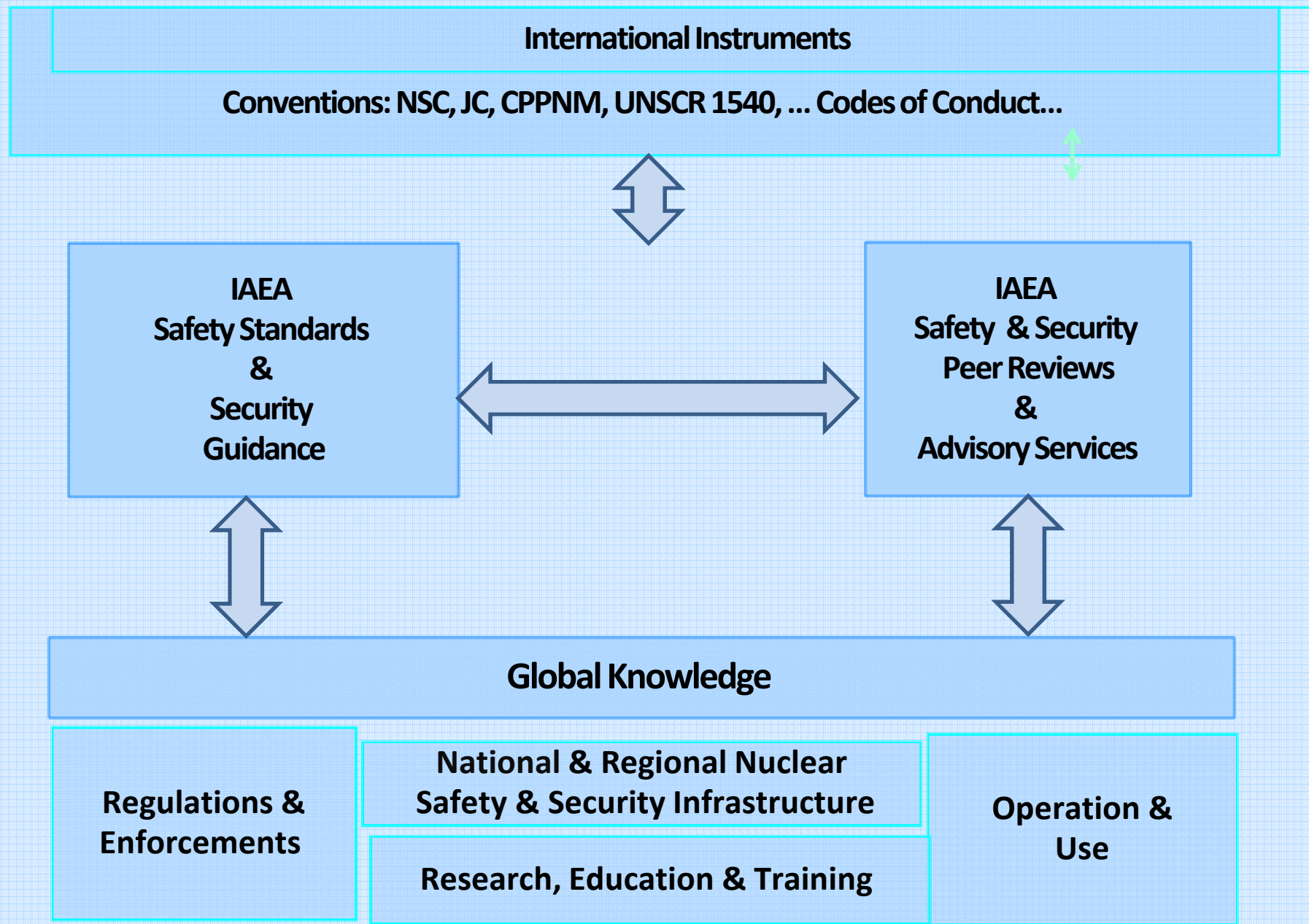


Security at IAEA



- September 11 attacks:
Would nuclear reactors withstand such attacks?
- Increased awareness of security risks
 - radioactive sources, nuclear fuel cycle e.g., reprocessing facilities and transport between sites
- 2003 Office of Nuclear Security established
- 2014 Office upgraded into Division of Nuclear Security

Global Nuclear Safety and Security Framework



Our frame of work, what we do.. our services

We develop **safety standards & security guidance**: Facilitating international consensus

We provide **training and knowledge networks**

We propose and conduct **Peer Reviews** :

- ✓ Self assessment & continuous improvement
- ✓ Openness and transparency,
- ✓ Identifying good practices & mutual learning

We support and promote the **implementation of legal instruments** i.e. conventions and codes of conduct

✓ Nuclear Installation Safety

✓ Emergency Preparedness and Response

✓ Nuclear Security

✓ Radiation, Transport and Waste safety

Department's Programme



Emergency Preparedness and Response



Vision:

Harmonised and effective national and global preparedness and response to nuclear or radiological emergencies

- The IEC is a 24/7 focal point for notification, information exchange, coordination of inter-agency response
- Assistance upon request
- Assessment and prognosis
- Peer reviews, capacity building, Safety Standards
- Convention Exercises (ConvEx)

More info @ iec.iaea.org

Nuclear Installations Safety

- **Safety Standards**
- **Peer Reviews**
- **Advisory Services**
- **Capacity Building**



- Nuclear Power Plants
- Research Reactors
- Fuel Cycle Facilities

More info @ <http://www-ns.iaea.org/home/nis.asp?s=2&l=16>

- Develop internationally recognized safety standards
- Provide services that meet MSs' needs
- Provide quality support and assistance to MSs developing safety infrastructure
- Coordinate and collaborate effectively with other organizations
- Demonstrate the traits of an effective regulatory framework with focus on safety and a healthy safety culture

Radiation and Transport Safety



- Wider use of radioactive sources and ionizing radiation globally
- Increased annual per capita dose due to increasing medical exposure
- Denials and delays of shipment of radioactive materials

Assistance, Support, Advice,
Training

Control of rad. sources
Protection of patients
Occupational protection

More info @ <http://www-ns.iaea.org/home/rtws.asp?s=3&l=25>

<https://rpop.iaea.org/RPOP/RPoP/Content/AdditionalResources/iaeaprotectioncutdown2.mov>

Radioactive Waste Management



- Radioactive discharges to the environment
- Radiation protection for work involving minerals and raw materials
- Safe decommissioning
- Rapid re-development of the uranium production cycle industry
- Remediation of legacy sites
- Safe predisposal management and disposal of radioactive waste and spent fuel

More info @

<http://www-ns.iaea.org/tech-areas/waste-safety/disposable.asp?s=3&l=24>

Nuclear Security

- Entry into force of the 2005 Amendment to the CPPNM
- INSSP – Integrated Nuclear Security Support Plans
- Incident and Trafficking Data Base
- Capacity Building and Nuclear Security Support Centres
- Nuclear security assistance at major public events (Pan-American Games -Brazil and Summer Olympic Games -China)
- Nuclear Forensics
- Computer Security and Information Security

More info @ <http://www-ns.iaea.org/security/default.asp?s=4&l=33>

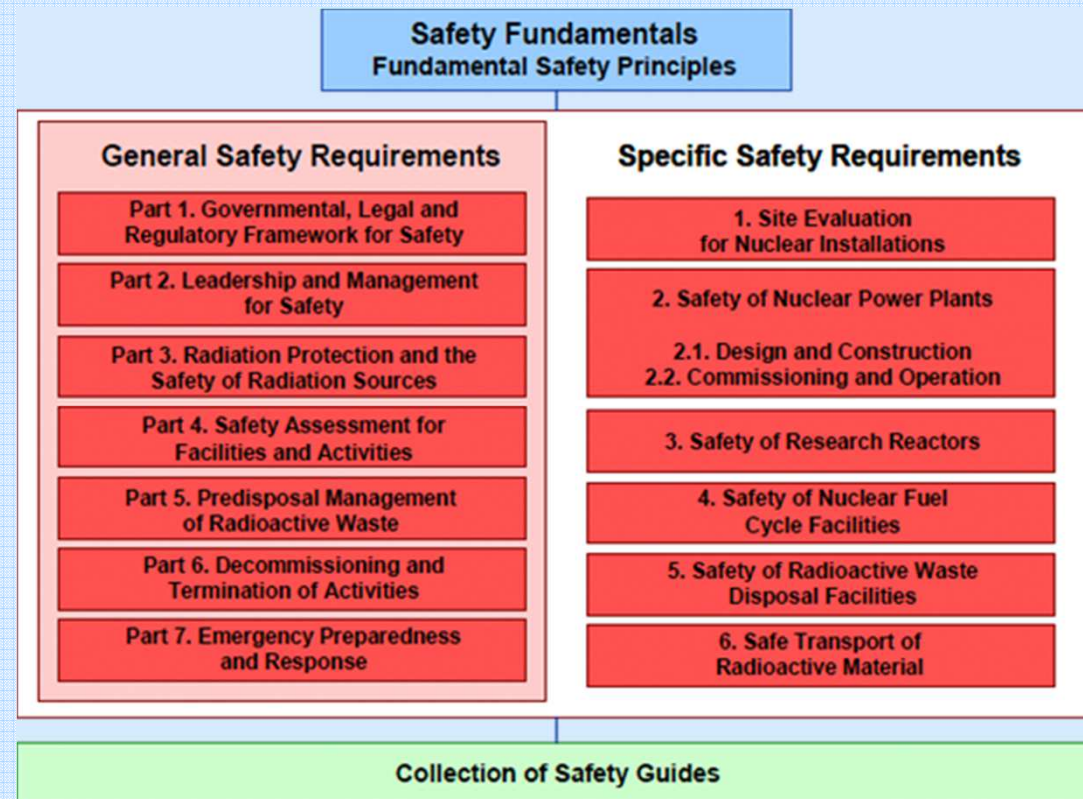
Peer Reviews and Advisory Services

Users \ Areas		Areas				
		Nuclear Safety	Radiation Protection & Safety	Radioactive Waste Management	Transport	Incident & Emergency
Regulators	IRRS, INSARR, Advisory mission for source safety, RP Fact Finding Mission, SEED, ARTEMIS	IRRS, EduTA, RP Fact Finding Mission, Advisory mission for source safety	IRRS, NSRW waste management missions, ARTEMIS	IRRS, TranSAS	EPREV, IRRS	IPPAS, INSServ,
Operating organizations	OSART, INSARR, SEDO, SEED, ARTEMIS, DSARS	ORPAS, OSART, SEDO, INSARR	SEDO, NSRW waste management missions, INSARR, ARTEMIS	TranSAS	EPREV, SEDO, OSART, INSARR	IPPAS,
Vendors	DSARS					
Educators	SEDO, OSART, DSARS	ORPAS, EduTA, ETRES			EPREV	IPPAS, INSServ
Law Enforcement		ORPAS		IPPAS, INSServ	EPREV	INSServ
State officials / Governments						
Health sector		ORPAS, RPoPAS			EPREV	
TSOs						

More info @ <http://www-ns.iaea.org/reviews/default.asp?s=7&l=57>

Safety Standards and Security Series

Safety Standards: <http://www-ns.iaea.org/standards/default.asp?s=11&l=90>



Security Series:

http://www-ns.iaea.org/security/nuclear_security_series.asp?s=5&l=35

Additional Information

- IAEA Annual Report:
https://www.iaea.org/sites/default/files/anrep2013_full_0.pdf
- Nuclear Safety Review 2014:
https://www.iaea.org/About/Policy/GC/GC58/GC58InfDocuments/English/gc58inf-3_en.pdf
- Nuclear Security Report 2014 (on GovAtom): [http://www-govatom.iaea.org/DocumentDetails.asp?Language=English&Path=f:\websites\govatom\govatomdocs\govdoc\2014\gov-2014-36-gc\(58\)-141\gov-2014-36-gc-58-14.doc](http://www-govatom.iaea.org/DocumentDetails.asp?Language=English&Path=f:\websites\govatom\govatomdocs\govdoc\2014\gov-2014-36-gc(58)-141\gov-2014-36-gc-58-14.doc)
- Measures to Strengthen International Cooperation in Nuclear, Radiation, Transport and Waste Safety 2014 (on GovAtom): [http://www-govatom.iaea.org/DocumentDetails.asp?Language=English&Path=f:\websites\govatom\govatomdocs\govdoc\2014\gov-2014-40-gc\(58\)-19\gov-2014-40-gc-58-19.doc](http://www-govatom.iaea.org/DocumentDetails.asp?Language=English&Path=f:\websites\govatom\govatomdocs\govdoc\2014\gov-2014-40-gc(58)-19\gov-2014-40-gc-58-19.doc)
- The Agency's Programme and Budget 2014-2015 GC(57)2:
https://www.iaea.org/About/Policy/GC/GC57/GC57Documents/English/gc57-2_en.pdf

Working to protect people, society and the environment



Thank you