

IAEA Post-Fukushima Activities

Nuclear Safety in Europe ENSREG

Third Regulatory Conference Brussels, 29-30 June 2015

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IAEA

International Atomic Energy Agency

MAKING NUCLEAR SAFER The IAEA Action Plan



Safety Assessments



IAEA Peer Reviews



Emergency Preparedness and Response



National Regulatory Bodies



Operating Organizations



IAEA Safety Standards



International Legal Framework



Member States Embarking on Nuclear Power



Capacity Building



Protection from Ionizing Radiation

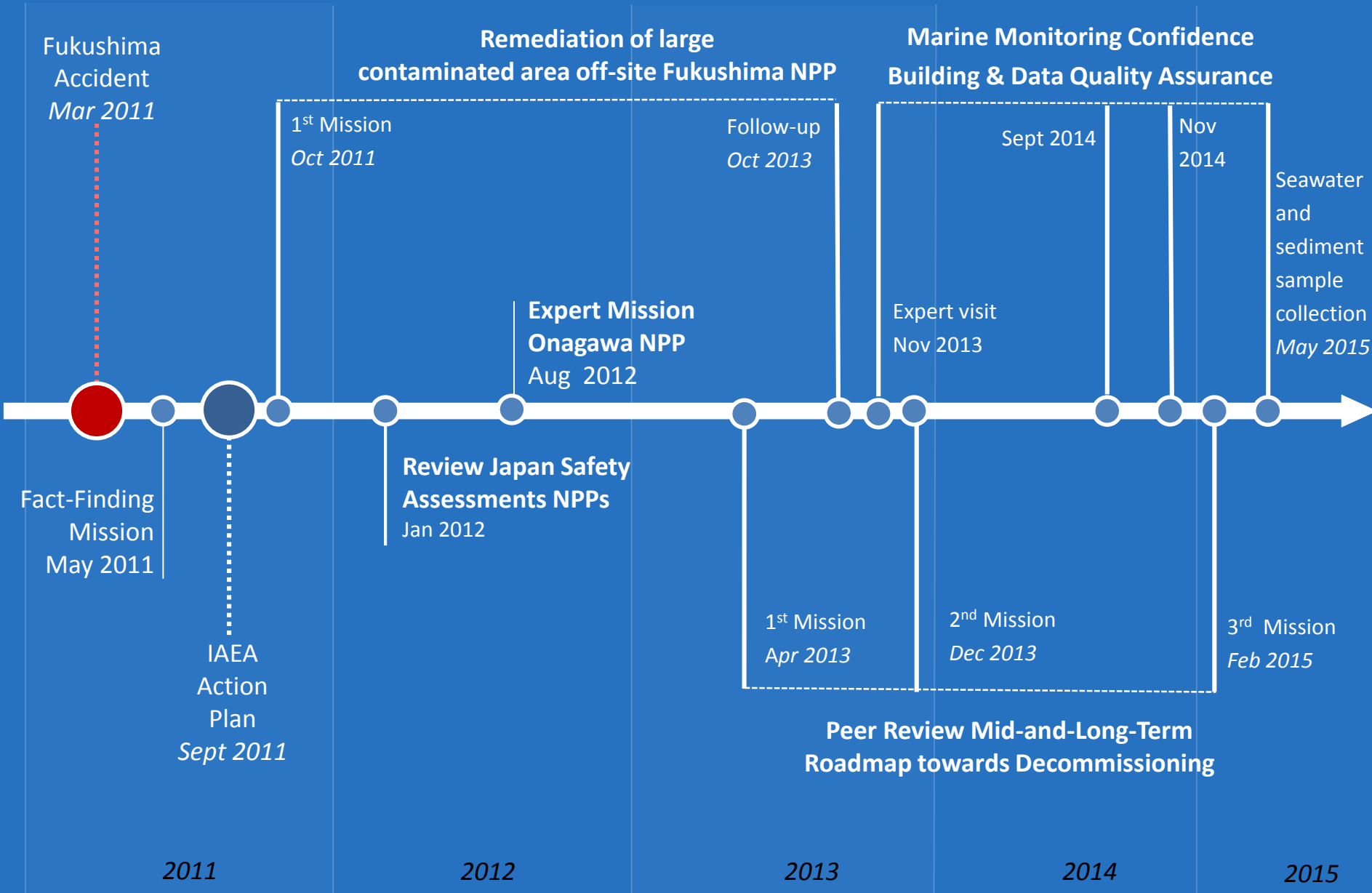


Communication



Research & Development

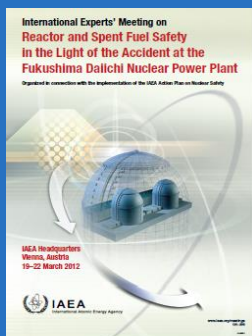
Japan expert mission timeline



International Expert Meetings

To analyse all relevant technical aspects and learn the lessons from the Fukushima Daiichi accident and IAEA shares these lessons worldwide

ITEM 1:



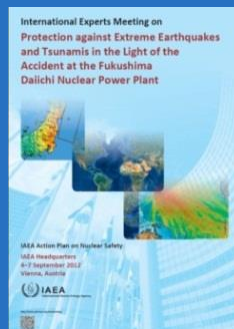
Reactor and Spent
Fuel Safety
March 2012

ITEM 2:



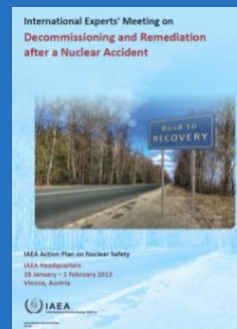
Transparency &
Communication
June 2012

ITEM 3:



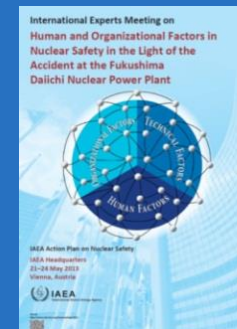
Protection Against
External Events
Sept 2012

ITEM 4:



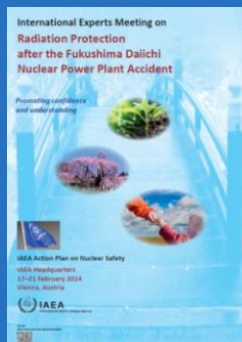
Decommissioning
and Remediation
January 2013

ITEM 5:



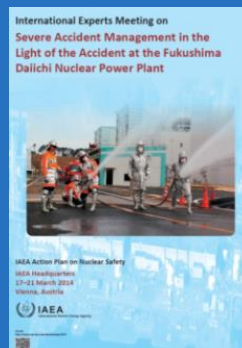
Human &
Organizational Factors
May 2013

ITEM 6:



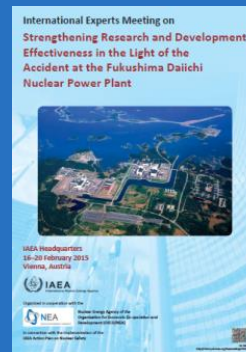
Radiation
protection
February 2014

ITEM 7:



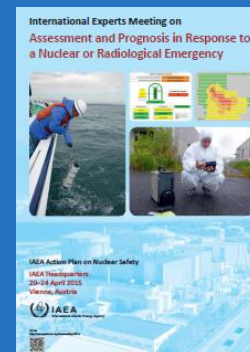
Severe accident
management
March 2014

ITEM 8:



Research and
Development
February 2015

ITEM 9:



Assessment and Prognosis in
Response to an Emergency
April 2015

IAEA Safety Standards

Safety Standards Review Task Force established

Systematic review of Safety Standards in light of Fukushima Accident:

- *Safety Assessment for Facilities and Activities (GSR Part 4);*
- *Governmental, Legal and Regulatory Framework for Safety (GSR Part 1);*
- *Site Evaluation for Nuclear Installations (NS-R-3);*
- *Safety of Nuclear Power Plants: Design (SSR-2/1); and*
- *Safety of Nuclear Power Plants: Commissioning and Operation (SSR-2/2).*

Chair of the Commission on Safety Standards Reported on the review (Nov 2012)

- No significant areas of weakness had been identified.
- Revisions were proposed to strengthen Requirements (through addenda)

Submitted to the Board of Governors in March 2015

Peer Review Services - Overview

- **OSART** – Operational Safety Review Team
- **IRRS** – Integrated Regulatory Review Service
- **EPREV** – Emergency Preparedness Review
- **DSARS** – Design and Safety Assessment Review Service
- **SALTO** – Safety Aspects of Long Term Operation
- **SEED** – Site and External Events Design Review Service
- **ARTEMIS** – Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation



NSAP Action 2 – Main Activities

- Following the accident and the adoption of the Action Plan, there was an **increase in requests for the IAEA peer review services**
- **Strengthening and enhance effectiveness** of existing peer reviews, while maintaining the concept of self-assessment in all safety areas
- **Fukushima Module** included in all IAEA peer review services
- To **enhance transparency**, the IAEA Secretariat provides summary **information on where and when** IAEA peer reviews have taken place, and to make publicly available the results of such reviews

All missions can be checked on the website of the IAEA Action Plan on Nuclear Safety



The screenshot shows the IAEA Nuclear Safety Action Plan Dashboard. At the top, there is a navigation bar with the IAEA logo and the text 'IAEA.org International Atomic Energy Agency'. Below this, there are several tabs: 'About Us', 'Our Work', 'News Centre', 'Publications', and 'Nucleus'. The main content area is titled 'Nuclear Safety & Security' and includes a sidebar with a tree view of categories: 'Nuclear Safety & Security', 'Safety & Security Framework', 'Technical Areas', 'Services for Member States', 'Safety & Security Publications', 'Conventions & Codes', 'Education & Training', 'Meetings', and 'Special projects'. The main content area has a banner for 'MAKING NUCLEAR POWER SAFER The IAEA Action Plan' and a 'Mission Calendar' section. The 'Mission Calendar' section includes a 'Rate this page' button and a search bar. The search bar has the following options: 'Mission Type', 'Year', 'All countries', and 'Planned'. There is also a 'GO' button next to the search bar.

THE ACCIDENT AND ITS ASSESSMENT

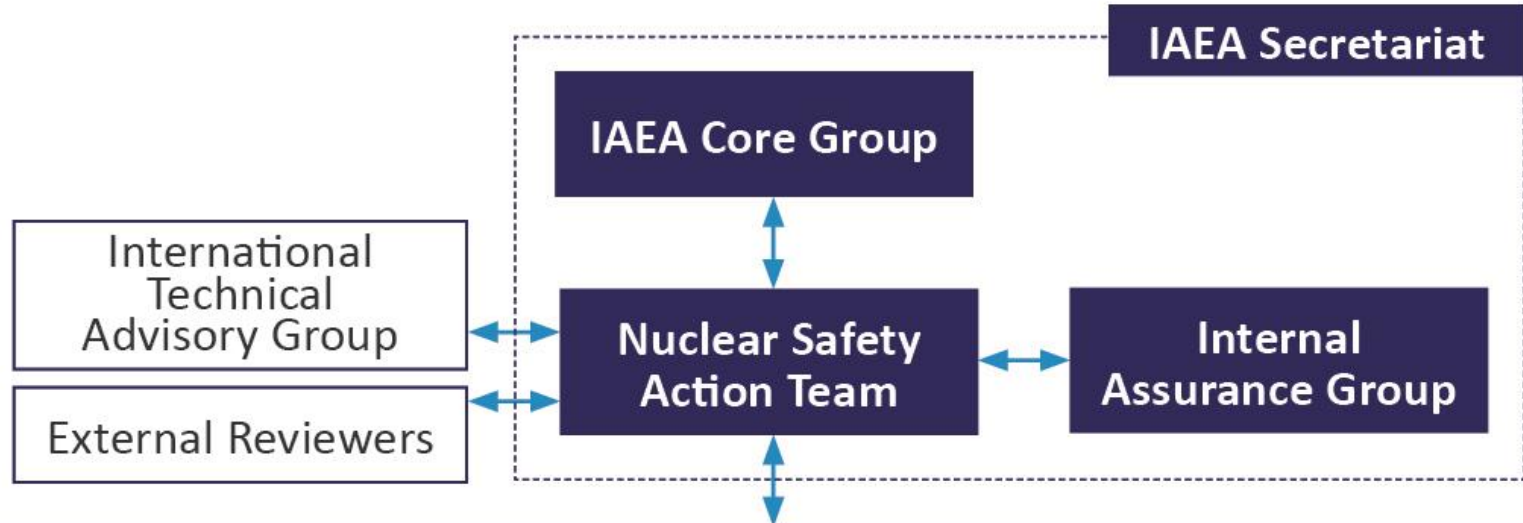


The Fukushima Daiichi Accident

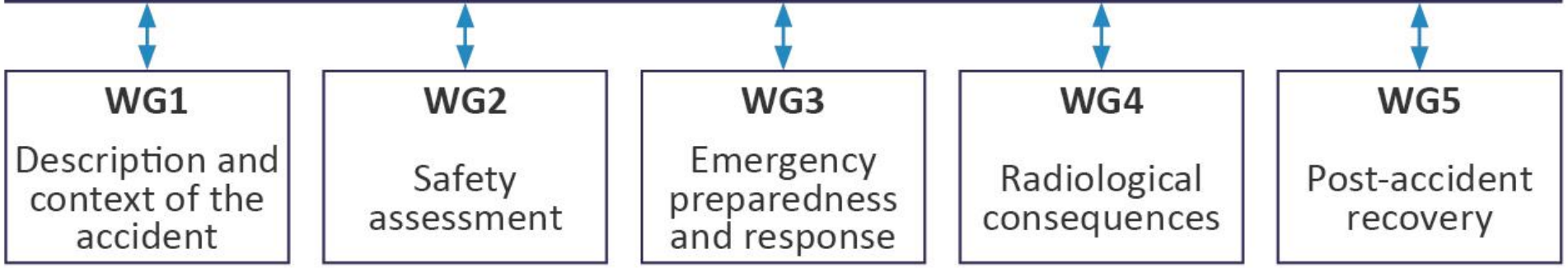


Approximately 180 experts from over 40 Member States and various international bodies (including IAEA staff) were involved in the preparation of the report.





WG Co-Chairs – External Experts – IAEA



Section 1: Introduction	The Report on the Fukushima Daiichi Accident					
Section 2: The accident and its assessment	Description of the accident	Nuclear safety considerations	Technical Volumes 1 & 2			
Section 3: Emergency preparedness and response	Initial response in Japan to the accident	Protecting emergency workers	Protecting the public	Transition from the emergency phase to the recovery phase and analyses of the response	Response within the international framework for emergency preparedness and response	Technical Volume 3
Section 4: Radiological consequences	Radioactivity in the environment	Protecting people against radiation exposure	Radiation exposure	Health effects	Radiological consequences for non-human biota	Technical Volume 4
Section 5: Post-accident recovery	Off-site remediation of areas affected by the accident	On-site stabilization and preparations for de-commissioning	Management of contaminated material and radioactive waste	Community revitalization and stakeholder engagement	Technical Volume 5	
Section 6: The IAEA response to the accident	IAEA activities	Meetings of the Contracting Parties to the Convention on Nuclear Safety	Technical Volumes 1 & 3			

Concluding Remarks

- ✓ 45 key observations and lessons were highlighted by the Fukushima Daiichi accident;
- ✓ The legacy of the Fukushima Daiichi accident will be a sharper focus on nuclear safety everywhere.
- ✓ IAEA safety standards embody an international consensus on what constituted a high level of safety.
- ✓ IAEA peer reviews have a key role to play in global nuclear safety.
- ✓ The accident underlined the vital importance of effective international cooperation.
- ✓ The IAEA has reviewed its own arrangements to respond to a nuclear emergency.
- ✓ Continuous questioning and openness to learning from experience are key to safety culture and are essential for everyone involved in nuclear power. Safety must always come first.

The Report on the Fukushima Daiichi Accident, including the Technical Volumes, will be released at the 59th IAEA General Conference in September 2015.

Thank you!



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