Nuclear Safety After Fukushima

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Where We Stand Today?

- Situation serious
- Three reactors not yet in cold shut-down; will take months to reach that status
- Spent fuel and reactor cores cooled with temporary arrangements
- Reactors running out of capacity to store highly contaminated water
- Contaminated water leaking and discharged intentionally into sea
- Earthquakes and hydrogen explosions have weakened containments
Role of the IAEA

- Safety conventions
- Codes of conduct
- Establishment of safety standards
- Peer review services
- Emergency response
Safety Conventions

- Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency
- Convention on Nuclear Safety
- Convention on Early Notification of Nuclear Accident or Radiological Emergency
Safety Standards

- Fundamental safety principles
- Safety requirements
- Safety guides
- Decisions on the way standards are applied and implemented by states.
Peer Review Services

- Education and training appraisal
- Emergency preparedness review
- Integrated regulatory review
- Nuclear security advisory
- Operational safety
- Radiation safety appraisal
- Research reactor and fuel cycle facility safety
- Safety assessment
- Safety culture review
- Site & seismic safety review
Emergency Response: Incident and Emergency Center

Global focal point for international preparedness and response to nuclear and radiological safety or security related incidents, emergencies, threats or events of media interest.
Lessons Learned

- Member states and public look to IAEA for information
- Initially, IAEA information was minimal and at times conflicting
- IAEA should make independent, transparent and timely assessments using all information available
- If information not forthcoming, IAEA should use its experts on-the-ground and liaise directly with authorities
- IAEA should explain the implications of not having access to all information available
- Expertise from Member States on accident handling in particular, and detailed knowledge on installations, should be drawn to picture and assigned to ground
What Next – Short Term?

- Top priority: stabilization of the situation.
- Start detailed, transparent, international examination on lessons learned.
- IAEA review of its own preparedness with the help of Member States to handle safety, security and safeguards emergencies.
- International expert mission should make the first assessment of the accident reviewing the actions of the operator and the authorities.
- Another expert mission should provide support on handling the current situation.
Key Dates

- Nuclear Safety Convention Review Meeting, 4-14 April 2011, Vienna
- G20 Nuclear Regulators Meeting, May 2011, Paris
What’s Next – Long term?

- World Nuclear Inspectorate?
- Enhance role of the IAEA?
- IAEA findings publicly available?
- Enhance emergency response capabilities of the IAEA?