Presentation to GNSSN

Liu Hua

National Nuclear Safety Administration of China
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I Activities to Fukushima Accident
After Fukushima accident, NNSA:

1. Emergency monitoring and response:
   - To analyze and assess on Fukushima Accident
   - To conduct radiological monitoring
   - To organize experience feedback
   - To cooperate with IAEA and other regulators
After Fukushima accident, NNSA:

2  Comprehensive safety examination to nuclear installations:

- **Methods**: Self-Examination, Technical Assessment, Site Inspection, Interaction with Industry, Expert Consultation.
- **Technical Scope**: 11 elements, focus on external events, severe accident management and emergency preparedness
● Conclusion for NPP

✓ China adopted IAEA safety standards as its national technical regulations.
✓ Design satisfied Chinese technical regulations. Improvements have been made continuously.
✓ The external events like earthquake and flooding have been considered and assessed when sitting. The extreme external event like Fukushima is unlikely to happen in China.
● Conclusion for NPP

✓ Construction quality and operation safety is under control in whole process of construction, installation, engineering management, equipment manufacture, commissioning and operation.

✓ Good safety operation record, and there is no event in grade 2 or above in INES.

✓ Chinese regulatory control is effective by NNSA.

✓ Based on experience feedback from Fukushima, some improvements should be conduct.
After Fukushima accident, NNSA:

3 Five year’s Nuclear safety plan
   The plan has been made and submitted to Chinese government for approval.

4 Capacity building
II Current status of safety networks and experience in knowledge and information sharing
• safety networks in China
  – NNSA is regulator, responsible for safety regulations, safety review, inspection, experience feedback, communication and information sharing.
  – CAEA is a governmental agency for development of nuclear fuel cycle, and the official channel with IAEA affairs.
  – CAEA operate ANSN network in China, no data.
Nuclear Safety Regulatory Body

- NNSA is a part of Ministry of Environmental Protection, consists of headquarter, six regional inspection offices, and TSO
- NNSA strengthen its organization and human resources after Fukushima.
- Vice minister of MEP is NNSA Administrator, and there are four vice Administrators.
**Staffing:**

-- NNSA headquarter: 85
-- Six Regional offices: now about 250 (total 331)
-- NSC: now about 400 (total 600)

Radiological Monitoring Center: 100
2 Experience in knowledge and information sharing

- IAEA safety standards reflect international experience and common sense for safety, Chinese safety regulations and guides adopt IAEA safety standards series.
- NNSA leading experience feedback with industry to share good practice and lessons on construction, commissioning, operation.
- NPP made QA program, nuclear safety culture is one of important part.
2 Experience in knowledge and information sharing

- NNSA establish training program for staff.
  - new staff, 2.5-months course, 4 times, 300 trainee
  - Technical staff for nuclear: 6-month course, 5 times, 150 trainee
  - Inspector: retraining every year
- Certified nuclear safety engineer in China
2 Experience in knowledge and information sharing

- NNSA establish 8 training centers on radiation protection by using IAEA training package, Up to now, about 12,000 trainee.
- NNSA establish nationwide network for radiation sources, Radiation Safety Management System based on IAEA RAIS system.
- Radiological monitoring network
- CAEA operate ANSN in China
- Public information
• III Some recommendations
• GNSSN is the platform for regulatory body. Regulators of MS should play key role. The working mechanism should be well established.

• GNSSN should integrate different networks developed by IAEA, such as ANSN.

• GNSSN should reflect the progress of Safety Action Plan in timely manner.
• The contents of GNSSN: action plan and its progress, safety standards, operating experience feedback, regulatory activities, training package, and more important, public information with easy understanding.

• GNSSN should be managed by regulators in MS, and has multi-languages.

• GNSSN should encourage regulators to help each other in safety technology, computer software, training, good practice, and experience feedback without any pre-conditions.
For public information and involvement

– Establishing information distribution system of operating organization.

– Establishing the long-term effective mechanism for public information and popularizing of nuclear safety knowledge.

– Improving response system dealing with public affairs in case of emergency, by which authoritative information are issued and published in time.
Thank you!