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Presentation to GNSSN

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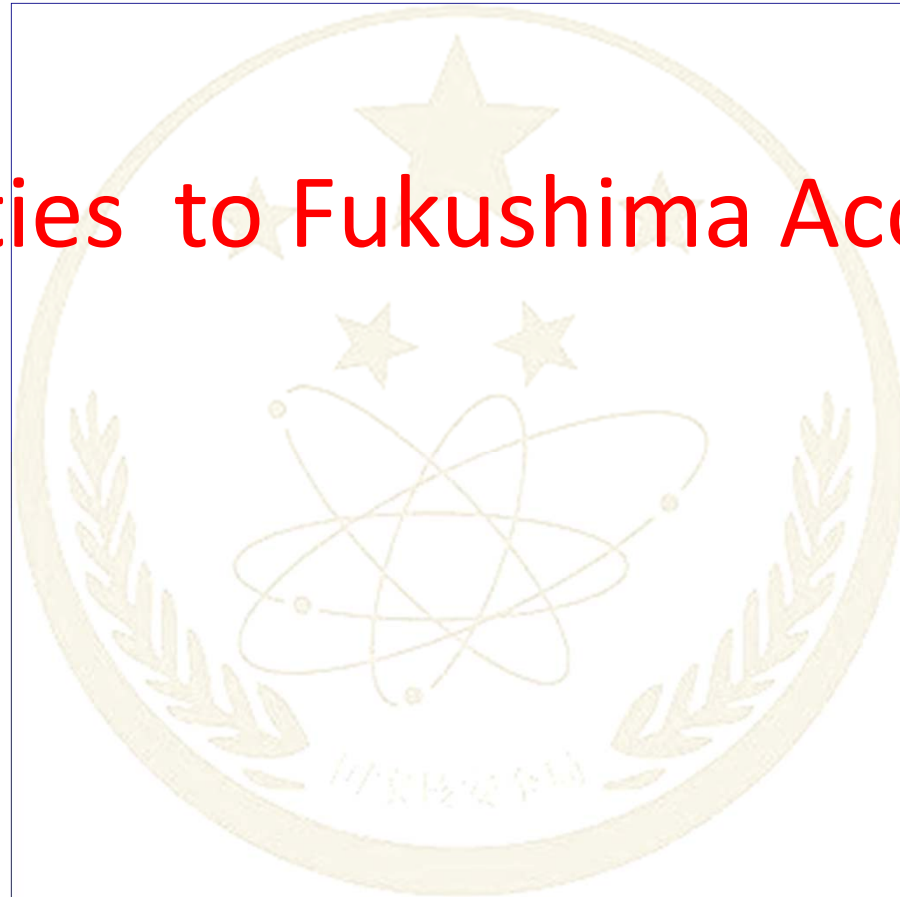


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I Activities to Fukushima Accident





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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



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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



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Comprehensive Safety Examination

● 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.



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Comprehensive Safety Examination

● 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.



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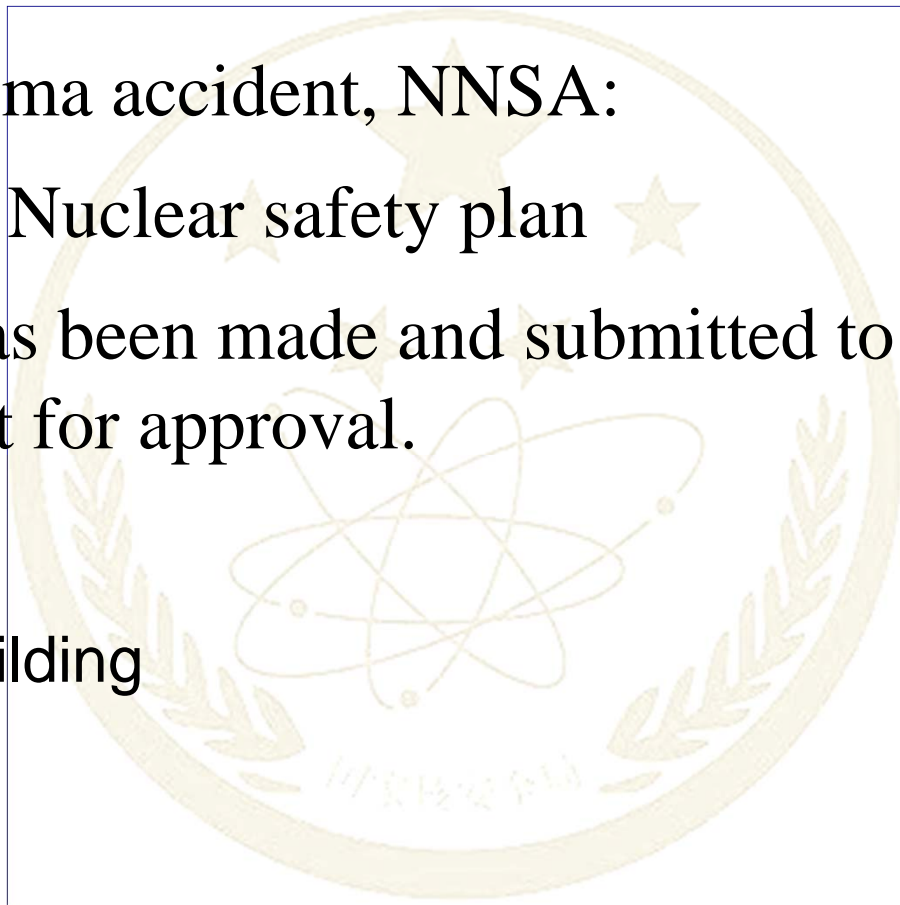


After Fukushima accident, NNSA:

3 Five year's Nuclear safety plan

The plan has been made and submitted to Chinese government for approval.

4 Capacity building



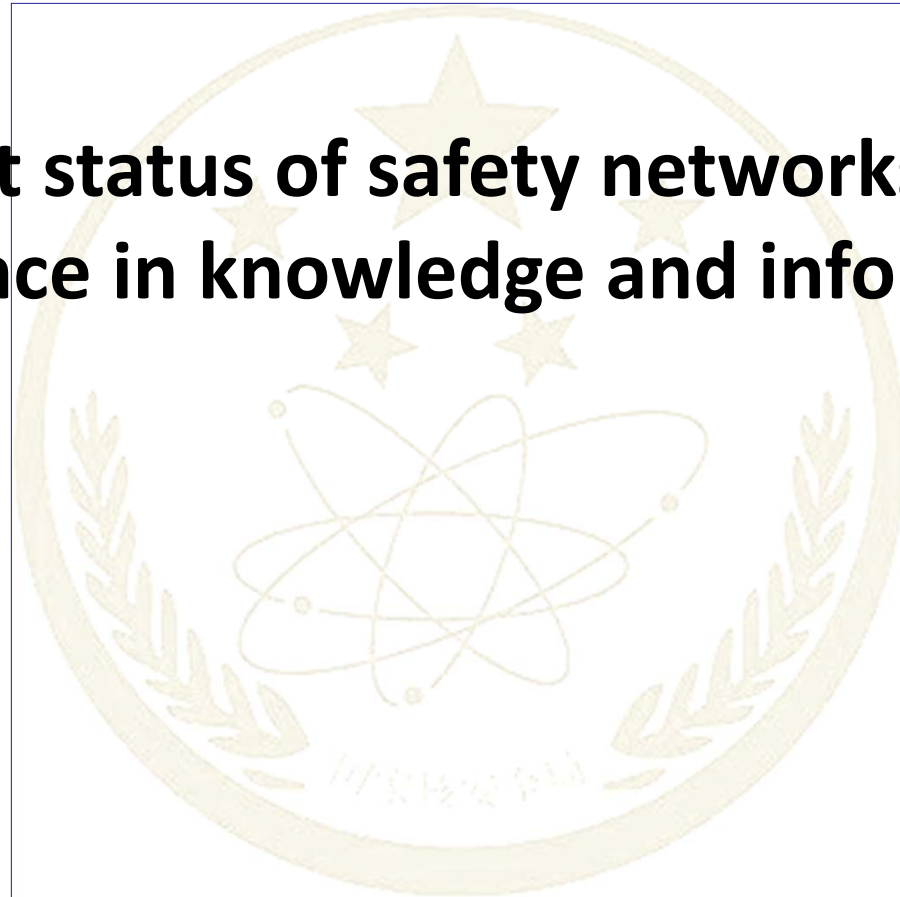


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II Current status of safety networks and experience in knowledge and information sharing





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- **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.**



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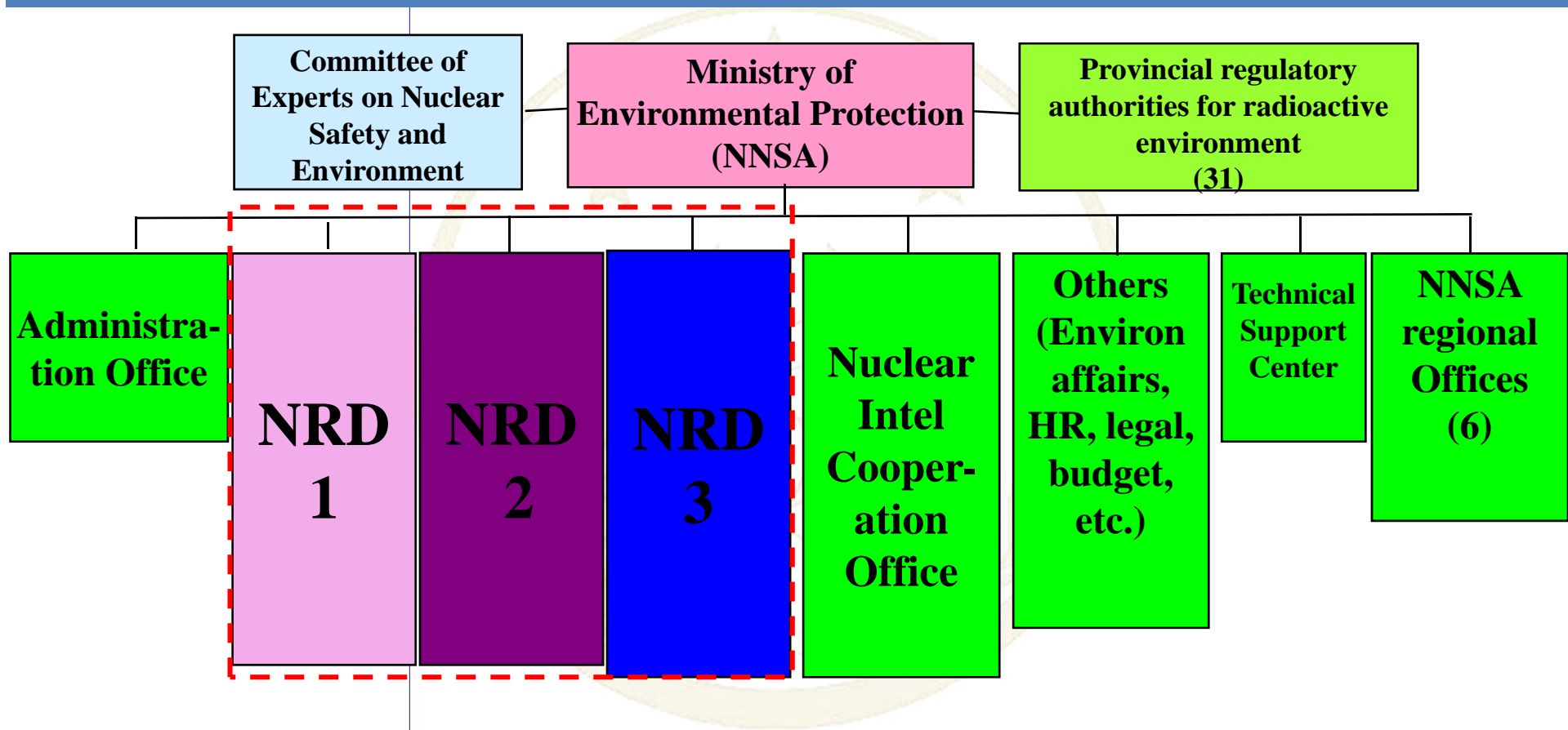


Nuclear Safety Regulatory Body

- 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.



Current Framework of Nuclear and radiation safety Regulation





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● **Staffing:**

-- NNSA headquarter. 85

-- Six Regional offices: now about 250 (total 331)

-- NSC: now about 400 (total 600)

Radiological Monitoring Center: 100



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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.**



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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**



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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**

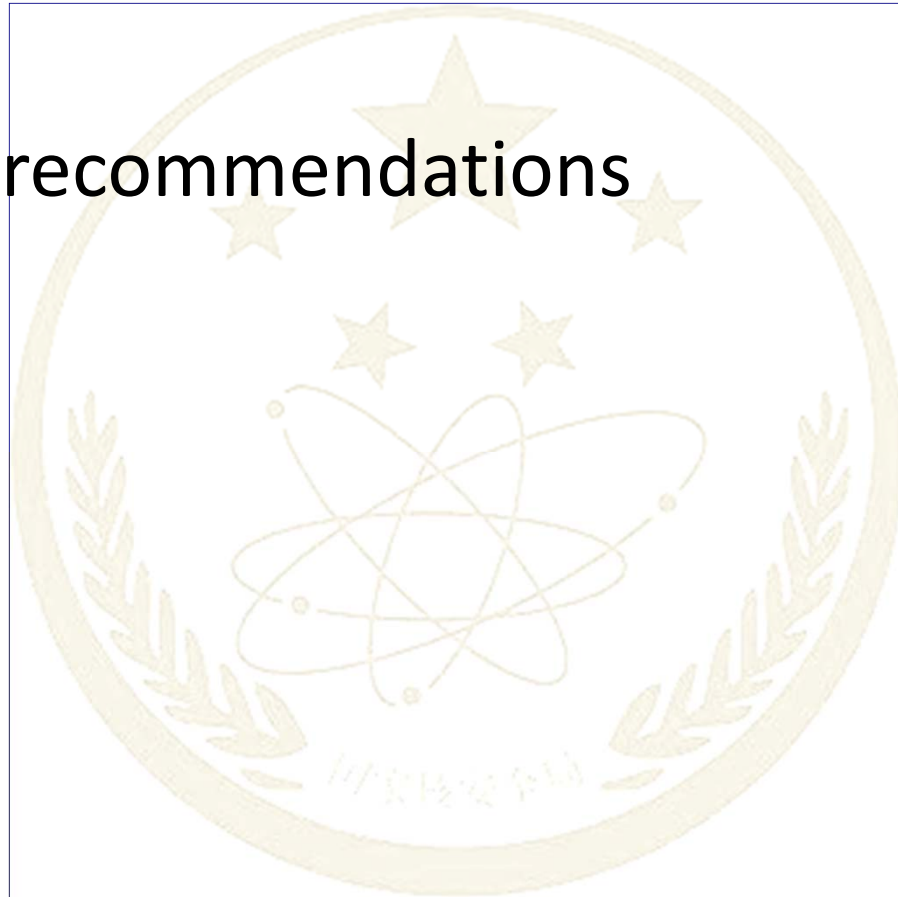


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- III Some recommendations





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- 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.



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- 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.



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Countermeasures on Nuclear Safety

- 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.



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Thank you!

