



国家核安全局

National Nuclear Safety Administration



**Upgrade nuclear safety in a rapid  
expanding nuclear program**





## Upgrade safety in a rapid expanding nuclear program

- With the rapid economic and social development, China is facing challenges of energy security, environment protection, and climate change.
- China sets forth a strategy to develop the nuclear power in a safe and fast approach.



## Upgrade safety in a rapid expanding nuclear program

- 29 units under construction
- 17 units in operation
- Challenges with the rapid development:
  - Qualified human resource
  - Engineering management
  - Regulatory oversight
  - Fostering of safety culture
  - Public acceptance



## Upgrade safety in a rapid expanding nuclear program

- China pays great attention to safety
- After the Fukushima accident,
  - the State Council convened several meetings to review nuclear safety issues
  - Plan on Nuclear Safety
  - Plan on Nuclear Power Safety
  - Plan on Mid & Long-term Nuclear Power Development



## Upgrade safety in a rapid expanding nuclear program

- To ensure safe development we focus on five aspects:

### **1 Obey the fundamental rules of the nuclear industry**

- Safety first, everyone shall hold nuclear safety in awe
- Foster a safety culture
- Set up a quality assurance system
- Implement the principles of defense in depth and multi barriers.



## Upgrade safety in a rapid expanding nuclear program

### 2 Make effort to promote safety culture

We should educate and guide all the practitioners to foster a series of concepts:

- Safety is the lifeline for nuclear power
- Safety is the most important economic benefit;
- Stringent oversight is the best support for the practitioners
- Regulatory activities shall be independent, open, legitimate, reasonable and effective
- Foster “prudent, rigorous, questioning, and conservative ” attitude and work ethics.



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### 3 Further enhance the safety of NPPs

Learn from Fukushima accident, we shall further improve and enhance in the following areas:

- Further understanding the utmost importance of nuclear safety to enhance safety culture and safety level
- Further raising the requirement of nuclear safety standard



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- further improving emergency response mechanism and enhancing emergency response capacity
- further enhancing the operators' management, technical capacity and resource support
- further enhancing the independence, authority, and effectiveness of regulator





## Upgrade safety in a rapid expanding nuclear program

- further promoting continuous improvement of nuclear safety by scientific innovation
- further enhancing experience and capacity sharing of nuclear safety
- further strengthening transparency to public



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### **4 Enhance regulatory regime to strengthen regulatory oversight**

After Fukushima accident, China promulgate the Plan on Nuclear Safety and enhanced the human resource of the regulator. An action plan was worked out for safety regulation and standard. the construction of a nuclear safety compound is underway. The compound, upon completion, will provide strong support for review, inspection, monitoring and R&D of nuclear safety.



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### **5 Enhancing transparency to the public**

- Public involvement will urge the practitioners to ensure openness
- Chinese regulator has been working in this regard and 5 documents was issued
- Arrangements, such as environmental monitoring, emergency preparedness and public propagation, are also meant to boost public confidence in the safety of the NPPs.



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**Thank you!**

