

The Role of Academic Societies in Nuclear Public Communication and the Practices of Chinese Nuclear Society

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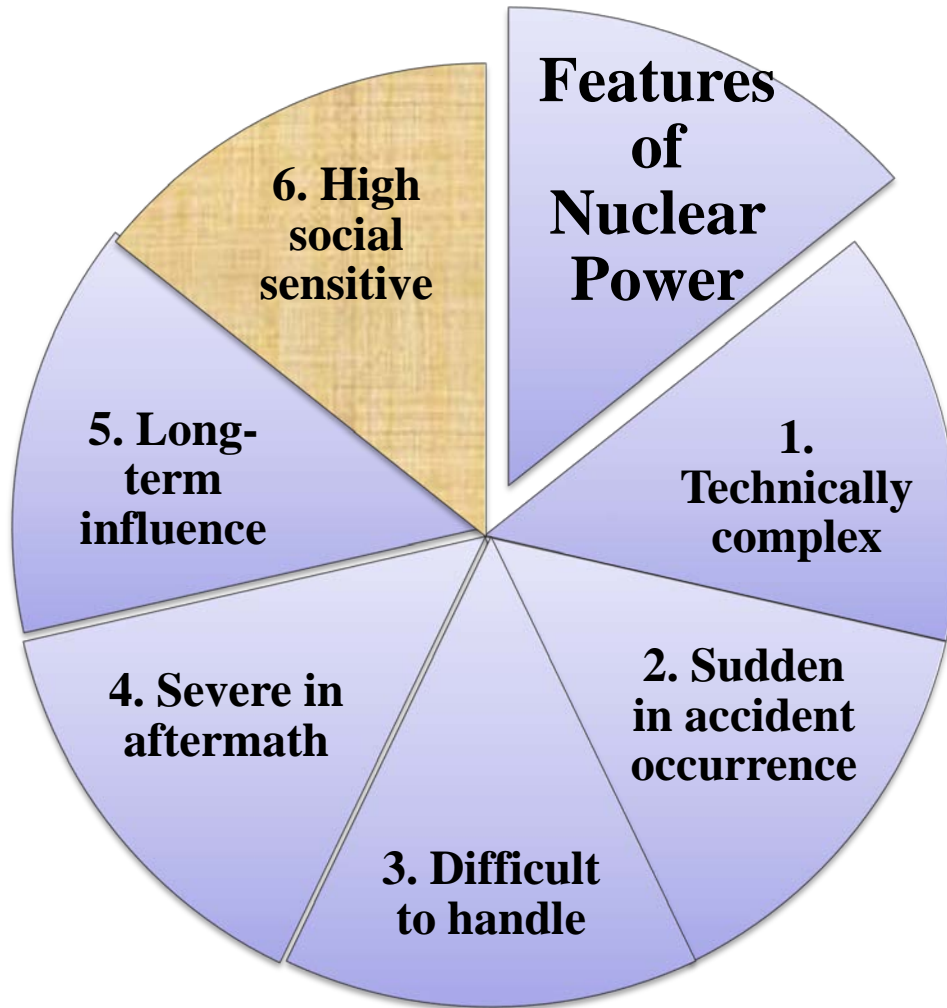
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I. Nuclear PA in China



NUCLEAR SAFETY is key to :
nuclear development,
public interest,
social stability,
and the future of a nation.



With the social and economical development in China, the public awareness of environmental protection and safety increases remarkably.

Especially after Fukushima, the public is more sensitive to nuclear safety: nuclear safety ensured? Regulatory system complete? Measures effective? Accident 100% preventable?

China is in the social transition period: internet and information technology develops at a fast pace. Public confidence and acceptance of nuclear is becoming one of the key factors affecting nuclear development.



The 12th National Plan for Nuclear Safety and Radioactive Pollution Prevention and 2020 Objective

(VII) Deepen Public Participation and Strengthen Public Confidence

1 We should establish open and transparent information communication platform in order to enhance nuclear transparency.

2 We should establish public information system on nuclear facility and define the scope, responsibility and procedure of the government body and the operator.

3 We should enhance public participation in the process of the siting, construction, operation and decommissioning of nuclear facility.



The 12th National Plan for Nuclear Safety and Radioactive Pollution Prevention and 2020 Objective

(VII) Deepen Public Participation and Strengthen Public Confidence

4 We should add knowledge of nuclear and radiation safety in the basic education system.

5 We should establish long and effective mechanism for nuclear safety education so as to meet the public's demand for nuclear safety information and to improve the public's understanding and confidence in nuclear power and nuclear technology application.

6 We should perfect the system for public relations in case of an emergency such as releasing authoritative information, making explanation to doubtful questions, clear public doubt, clearing untrue information in order to ensure the stability of the society.

- *The Interim Regulation on the Social Stability Risk Evaluation of Large Fixed Asset Investment Project* by National Development and Reform Commission (No. *Fagaitouzi* [2012] 2492) prescribes:
 - Project Owners should carry out investigation and analysis on the social stability risk before the pre-project work of the large project. It should consult the related public's opinion, seek and list risk areas, probability of the risk occurrence and its influence, propose measures to prevent and mitigate the risk, and propose the risk level of social stability after taking the measures.
 - The Social Stability Risk Analysis should be included in the Project's Feasibility Study Report and Project Application Report as an independent chapter.

“Jiangmen Event”

- The Project :
 - In Heshan Town of Jiangmen City, Guangdong Province.
 - A “one-stop” complex for uranium conversion, enrichment, and fuel manufacture.
 - 40 billion RMB (~6.4 billion USD)
 - May meet 50% demand in 2020.
- Suspended in July 2013 due to public opposition.



“Bailong Event”

- Bailong NPP Site :
 - In Fangchenggang City, Guangxi, China.
 - Around 40km from Fangchenggang NPP (Hongsha) under construction at present.
 - Construction not yet start.
- The People’s Congress of Fangchenggang City adopted a resolution *“requesting the upper governmental body to terminate the cooperation framework agreement on Bailong nuclear power plant”*
- Reason: to protect the tourist and vacational resource in Jiangshan Pennysula



防城港市人民代表大会常务委员会文件

防人发〔2014〕20号

防城港市人大常委会关于江山半岛旅游度假区旅游资源开发与保护的决议

(2014年5月20日防城港市第五届人民代表大会常务委员会第十八次会议通过)

防城港市第五届人民代表大会常务委员会第十八次会议，听取和审议了市人大常委会外事侨宗教委员会奉崇主任委员所作的《关于江山半岛旅游度假区旅游资源开发与保护情况的调研报告》。会议认为，江山半岛自1992年创建旅游度假区以来，特别是近几年来，在市委、市人民政府的高度重视下，旅游资源开发与保护工作逐年加强，旅游基础设施不断完善，旅游管理不断加强，旅游资源得到有效的开发与保护。但还存在一些亟待解决的问题，特别是江山半岛规划发展定位问题，我市广大人民群众高度关注，迫切希望早日解决。为适应我市全面建设小康社会和“十二五”经济社会发展需要，认真贯彻执行好广西东兴重点开发开放试验区建设总体规划和国家及地方旅游发展规划，把江山半岛建设成为世界一流的国际滨海旅游胜地。为此特作如下决议：

一、认真贯彻执行国家及地方旅游发展规划，坚定旅游发展目标。全市各级人民政府各部门要进一步统一思想认识，认真贯彻落实广西东兴重点开发开放试验区建设总体规划和国家、自治区及本市旅游发展规划，坚定把江山半岛建设成为世界一流滨海旅游目的地发展目标。市人民政府要顺应民意，顺势而为，从全市长远利益出发，**请求上级解除白龙核电站项目合作框架协议**，争取自治区人大对江山半岛旅游资源开发与保护进行立法，依法推进江山半岛资源保护与开发建设。

Lessons learned

- Public confidence in and acceptance of nuclear power has become a key factor affecting the NPP construction in China. The situation of 100% YES would never be the case.
- All the related organizations should swing their arms to take countermeasures.

- Academic society is a social community composed of academic scientists with the following 4 characteristics:
 - 1、专业性 Professional
 - 2、公众性 Public
 - 3、网络性 Networking
 - 4、公正性 Impartial



1、专业性 Professional

Information or knowledge provided by members of academic societies easier to be considered by the public to are PROFESSIONALLY correct.

2、公众性 Public

The members of academic societies are themselves from the public. They are one of the public by themselves. Their interest represents the public as well. They stay neutral from the government, enterprise, who are the major beneficiary of NPP.

3、网络性 Networking

Members of an academic society are from **different region and profession**. Most societies also have **technical divisions and regional branches**, which compose a big network. In case of an emergency, it is easy to use this network **to find the most appropriate expert** to make adequate explanation and to help the public to take countermeasures. E.g. Chinese Nuclear Society has 24 technical divisions and 21 provincial nuclear societies.

4、公正性 Impartial

Academic society is **not the direct beneficiary** of a project. It is more neutral compared to the government or the enterprise. It is easier for the public to believe that it is fair and impartial.

Law on Science Popularization adopted on June 29, 2002: **scientific and technical societies are the major social strength in science popularization.**

Chinese Nuclear Society (CNS) :

- Founded in 1980
- Founders: Wang Ganchang, Qian Sanqiang, Zhu Guangya, etc.
- Current President: Li Guangxing, Academician of Engineering
- Individual members: ~10,000; Institutional: 145
- Business scope:
 - 1) Academic exchange;
 - 2) Science popularization;
 - 3) Evaluation and consultation;
 - 4) Recognition and nomination;
 - 5) Member service;
 - 6) International cooperation.

III. PA Practices of CNS

- Working Committee on Science Popularization, Consultation and Education: 46 people
 - Responsibility: general planning and guidance on CNS activities
- Department of Science Popularization and Public Communication in CNS Secretariat: 4 staff.
 - Responsibility: proposal and implementation.

III. PA Practices of CNS

- Nuclear science popularization: a key part of CNS activities since 1980 :
 - 1) **Exhibition** : Exhibition on Nuclear Science and Application, Nuclear Industry China (NIC)
 - 2) **Academician Tour**
 - 3) **Knowledge Competition**
 - 4) **Summer Camp on Nuclear**
 - 5) **Regular science popularization** : "Interesting Nuclear" site tour
 - 6) **Media communication** : "Face to face with scientists"
 - 7) **Resource Development** : Books, booklets, posters, exhibition booth design.
 - 8) **New media** : WeChat, WeBlog, website

1) Exhibition:

- Exhibition on Nuclear Science and Application, :
 - Oct. 1983, first in Beijing. Nuclear knowledge, application in industry, agriculture, medicine, electricity.
 - 70,000 visitors.
 - 1984~1985, also in other cities.
 - In 1986: millions of Hong Kongers signed to oppose Daya Bay NPP. CNS organized exhibition and technical lectures in HK. 80,000 visitors, 1,000,000 booklets, 1 month. Very good feedback.



Nuclear Industry China (China Int'l Nuclear Exhibition):

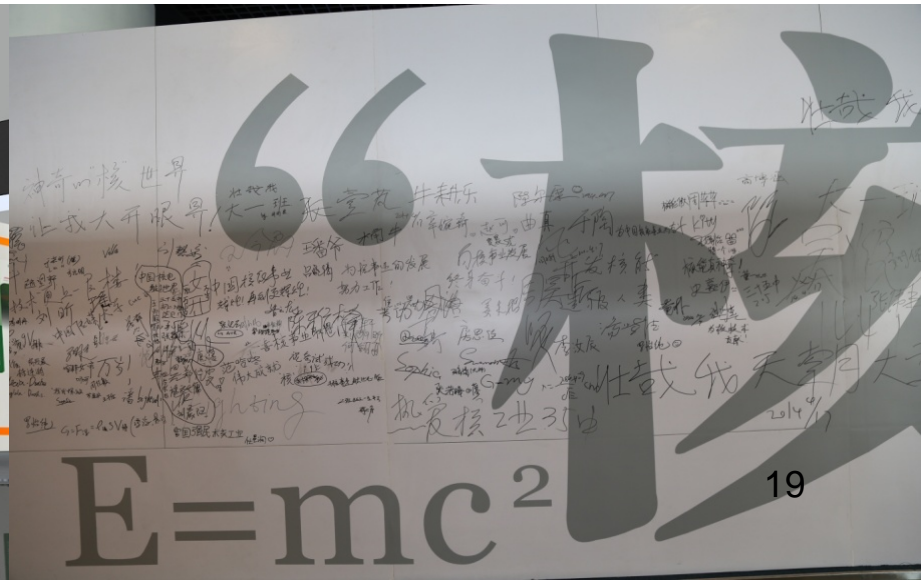
- Every 2 years (even year)
- “3 in 1”: Exhibition, Seminar, Science Popularization
- Longest history in China: started in 1989
- Highest Ranking: Former Chinese President Jiang Zemin attended NIC in 2004
- Largest in area: 14,000m²
- Great Influence: 14,000 visitors, 40 countries in 2014



III. PA Practices of CNS

NIC 2014:

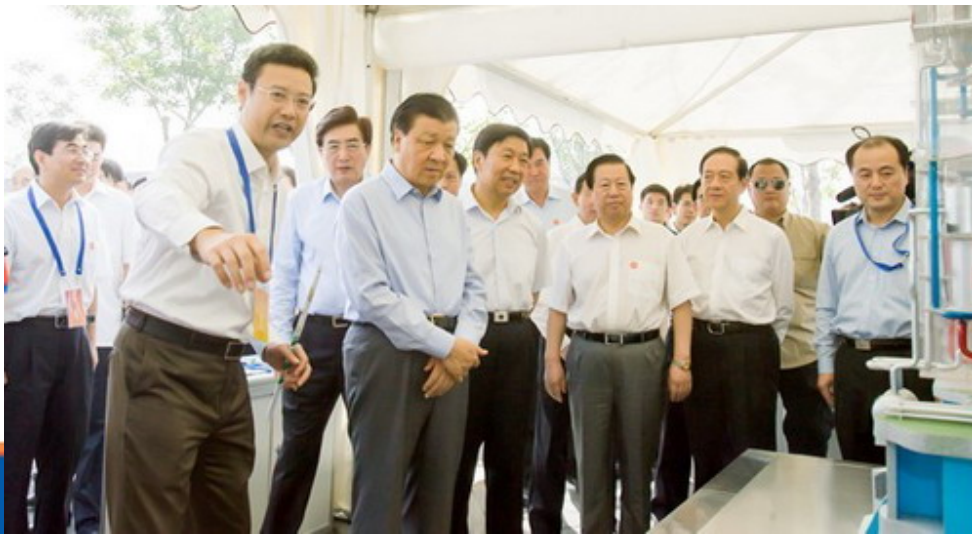
- An dedicated booth for nuclear science popularization: 360m²
- Vice Premier MA Kai: *Nuclear Science Popularization is a special feature of this NIC. Please invite more to come and learn.*
- Wall for Comment: "Magic nuclear world!" "Long live, Hunan NPP!"



III. PA Practices of CNS

National Science Popularization Day in 2013:

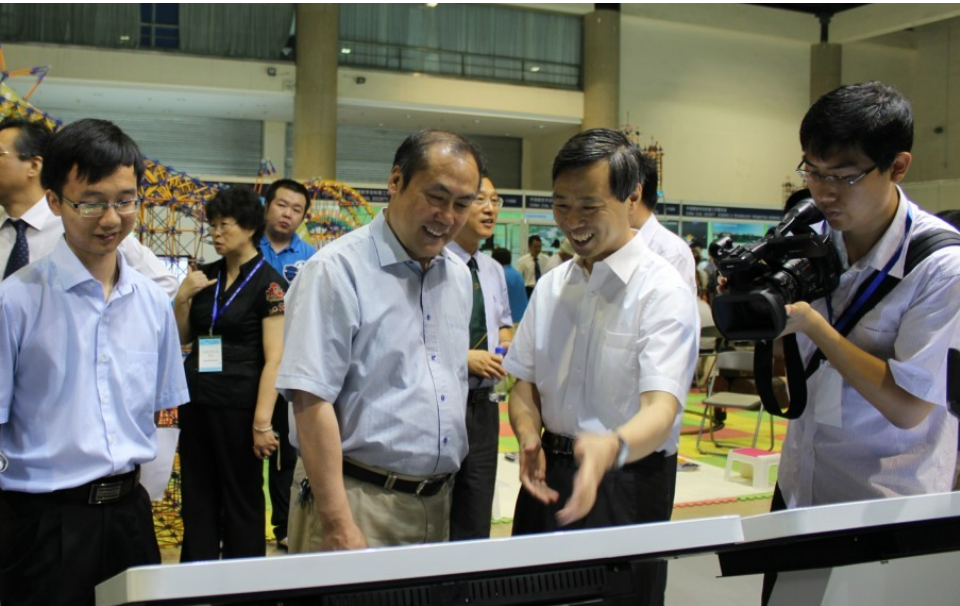
- **Central Government officials** visited CNS booth
- **Models:** NPP model, CEFR model;
- **Computer games:** “How to build a NPP”, “Drive in a NPP”
- **Video:** “Into the Nuclear World”, “Magic Fast Reactor”
- **Books:** *Into the Nuclear World*, *Nuclear Science Knowledge*
- **RESULT:** ~60,000 visitors/day, 1 week; reported by CCTV



III. PA Practices of CNS

Exhibition on Science Popularization Product: July 18-20, 2013

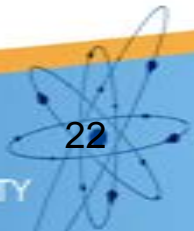
- Organize to exhibit NPP models, computer games, radiation monitoring.
- CAST Vice Chairman Zhang Qin
- Public visitors and students: ~50,000



2) “Academician Tour” :

Invite Academicians from Chinese Academy of Sciences, Chinese Academy of Engineering to give lectures

- Lecture to government officials, the public
- >10 times since 2001, in Beijing, Shanghai, Qinshan, Sanmen, Tianwan, Hubei, Shangdong, Liaoning, Hunan
- > 30 Academicians
- ~ 30,000 audience



III. PA Practices of CNS

- May 2013:
 - For Inland NPP2013
 - 6 Academicians
 - ~ 3000 people: governmental officials, the public, students
 - Supportive comments to Taohuajiang and Xiaomeshan sites
 - Develop a report to related organizations supporting inland NPP



3) Nuclear Knowledge Contest:

- 7 times since 1986
 - First 5 times: using newspapers, 63824 replies, 2868 replies 100% correct.
 - Comments from the public: “*Nuclear Knowledge Contest is like a red ribbon connecting all those love nuclear.*”

“Glamour of Nuclear” Nuclear Knowledge Contest for Middle School Students:

- First time in 2013:
 - Questions answered on the website
 - 6089 students from 33 provinces
 - First 20 awarded the chance for a “Summer Camp”
- Second time in 2014:
 - ~100,000 participants (77302 students, ~30,000 adults)
 - First 30 awarded the chance for a “Summer Camp”



4) Summer Camp

多位专家参加启动仪式



胡思得院士科普讲座

北京35中学生聆听讲座



5) Regular Public Visits: “Interesting Nuclear”

- July 2013, 40 artists visited MNSR, CEFR to experience “Nuclear Reaction”
- Sept 2013, 37 science fans visited MNSR, CEFR to have a “close touch” with radiation



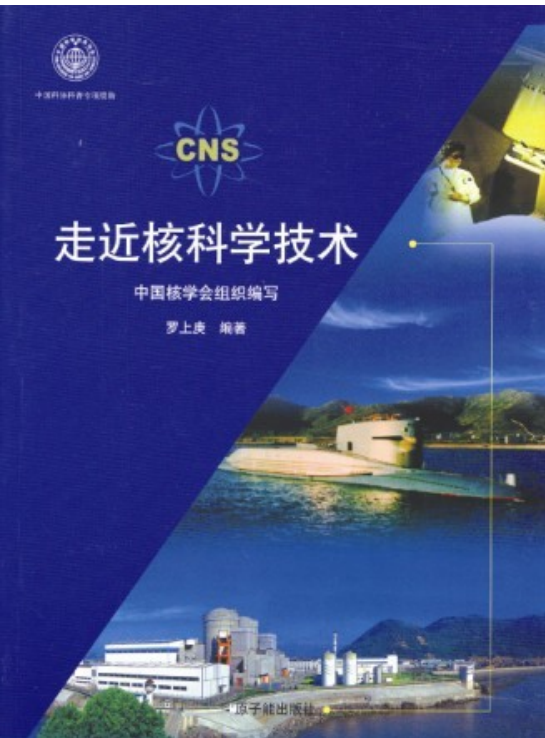
6) Media Communication:

- “Face to Face with Scientists”
 - 26th in April 2013
 - 39th in April 2014
- Nuclear experts met public media
- > 30 public media participated and made reports: Xinhua News Agency, *The People's Daily*, *The Science and Technology Daily*, ...



7) Books, posters on nuclear:

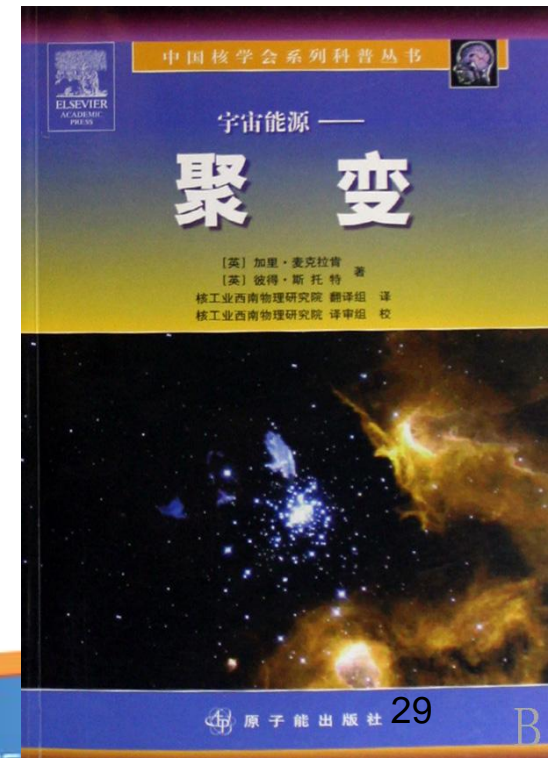
*Into Nuclear Science
and Technology*



*Nuclear
Knowledge*



Fusion



8) New Media:

- WeChat
- Animation:
 - *Magic Fast Reactor*



04月12日



【核工展专题】（精彩先知道之一）“核”我们一起探秘



【核工展专题】（精彩先知道之二）“魅力之光”启动仪式



【核工展专题】（精彩先知道之三）技术交流会指南



【提示】欢迎关注中国国际核工业展览会微信公众号



Conclusion

Academic societies are easier to be trusted by the public in China.

It is the social responsibility for academic society to carry out science popularization.

Continuous actions in science popularization is important!