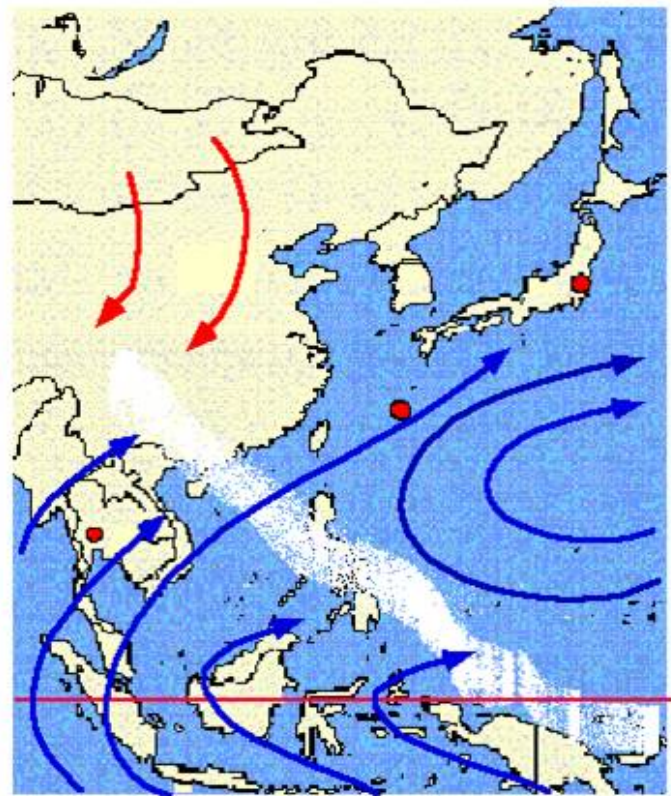
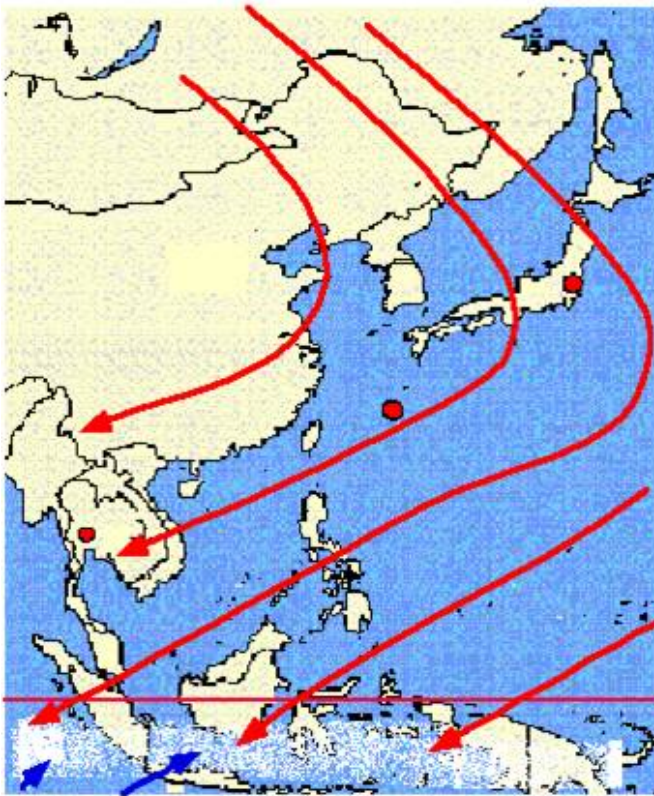




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## Recommended Citation

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5 May 2015

[English version \( \) here](#)

<http://www.kdjlibrary.org/>

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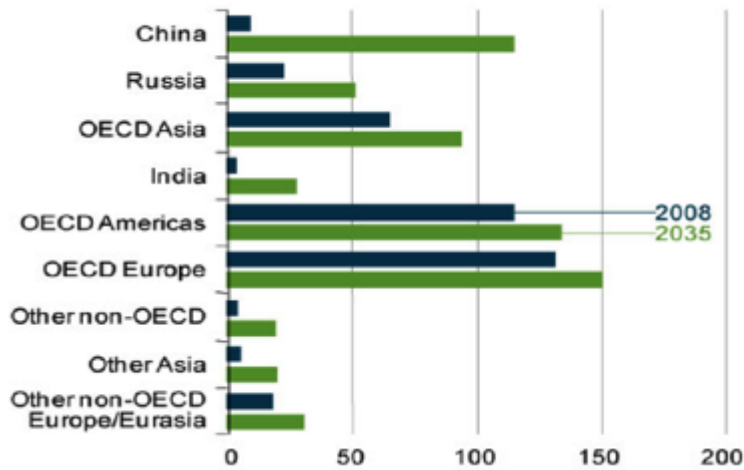
- Y 2014 24 , 21 , 48 ( ) 93 가 , 2030 300
- Y BERC(Berkeley Energy & Resource Collaborative) 2035 OECD Asia( , )



자료: 동아일보 2011년 4월 5일자 “한반도 핵의 고리에 포위된다” .

(from “China’s post-Fukushima attitude toward nuclear energy”, BERC 2012.10.2.)

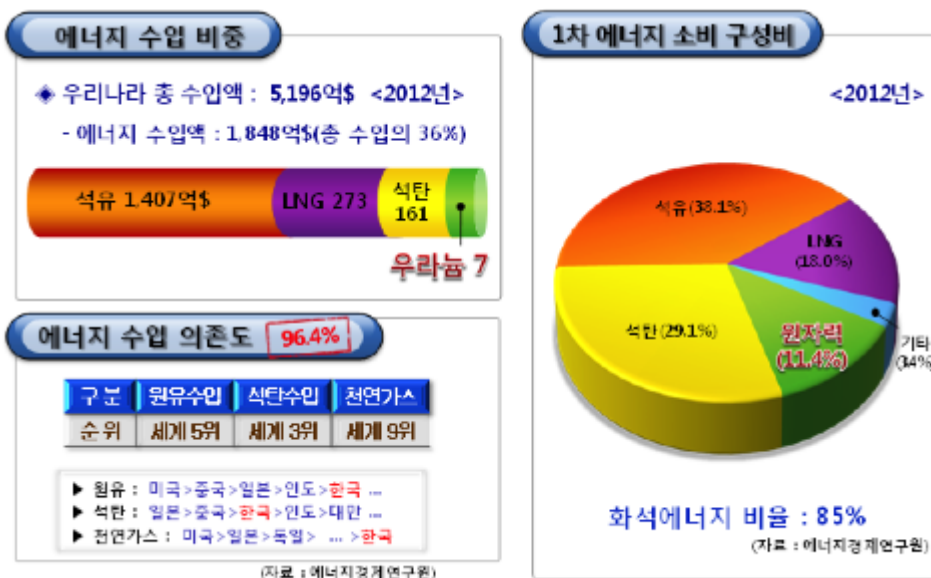
Figure 7. World nuclear generating capacity, 2008 and 2035 (gigawatts)



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원자력안전법(법률)	원자력의 연구 개발·생산·이용에 따른 안전관리에 관한 사항을 규정
시행령(대통령령)	「원자력안전법」에서 위임된 사항과 그 시행에 필요한 사항을 규정
시행규칙(NSSC규칙)	「원자력안전법」 및 동법 시행령에서 위임된 사항과 시행에 관한 규정
안전위원회 고시	기술기준 및 행정절차에 관한 사항을 상세히 규정
규제 기준 / 지침	규제기준, 규제지침, 심검사 지침, KEPIC, ASME 등

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( , 2013 6 , IAEA TWG-LWR )

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On Friday, China's President Xi Jinping told a government meeting that development of nuclear energy should be accelerated. "By adopting top international standards and ensuring safety, China should lose no time in constructing nuclear power projects in eastern coastal regions," Xi said, as state-run Xinhua newswire reported.

At the end of 2013, China's 17 operational nuclear power plants were generating about 2 percent of the country's total energy, according to Xinhua. But Ye Qizhen, an expert in nuclear energy at the Chinese Academy of Engineering, told the newswire that China should aim to get 10 percent of total energy from nuclear power.

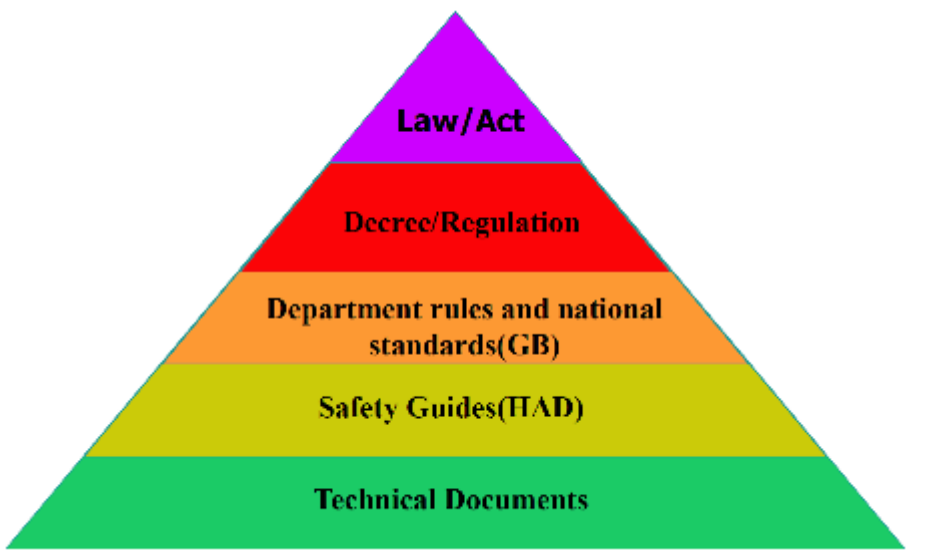
(from Bloomberg Businessweek, 2014. 6. 17일자)

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• □ 1984

• □ , , , 가

• □ 가 2003 " " , , 가 8 , 27 , 6 ( , STEPI, p. 66)



➤ **Laws** — Issued by the Congress (**Mandatory**).

Law on Prevention and Control of Radioactive Pollution, 2003  
Law on Environmental Impact Evaluation

➤ **Regulations**— Issued by the State Council (**Mandatory**).

- Regulation on Surveillance of Civilian Nuclear Installations, 1986
- Regulation on Nuclear Materials Control, 1989
- Regulation on Nuclear Accident Emergency Management in NPPs, 1993
- Regulation on Safety and Protection of Radioisotope and Radioactive Ray-Emitting Devices, 2005
- Regulation on Surveillance of Civilian Nuclear Safety Equipment, 2007
- Regulation on Surveillance of Radioactive Substance Transportation, 2009
- Regulation on Surveillance of Radwaste, 2011

➤ **Departmental rules and national Standards (more than 20)**

— Department rules are issued by MEP(NNSA)

- Code on the Safety of Nuclear Power Plant: Siting (1991)
- Code on the Safety of Nuclear Power Plant: Design (2004)
- Code on the Safety of Nuclear Power Plant: Operation (2004)
- Code on the Safety of Nuclear Power Plant Quality Assurance (1991)

...etc.

— Mandatory standards on nuclear safety and radiation protection are issued jointly by MEP and China Commission of Standards

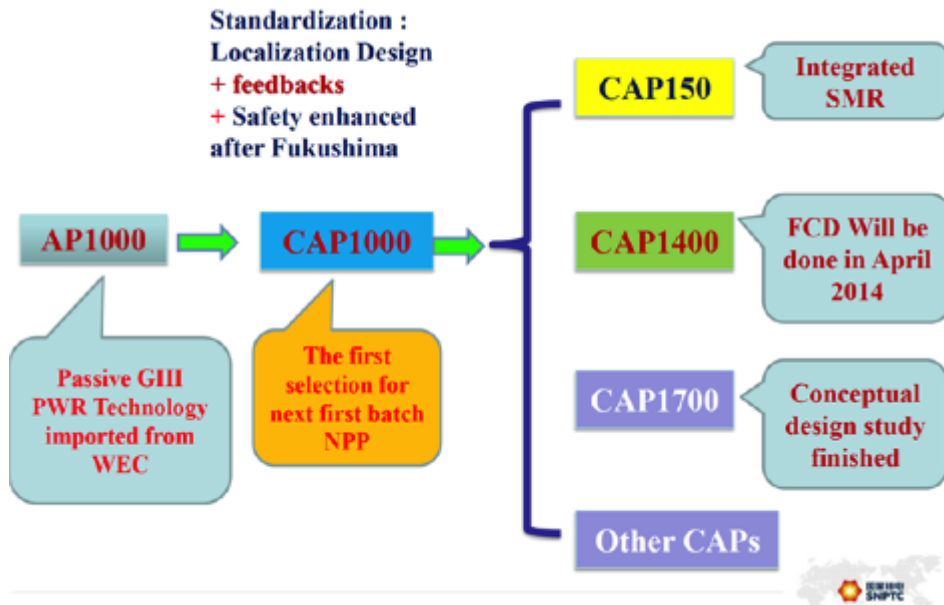
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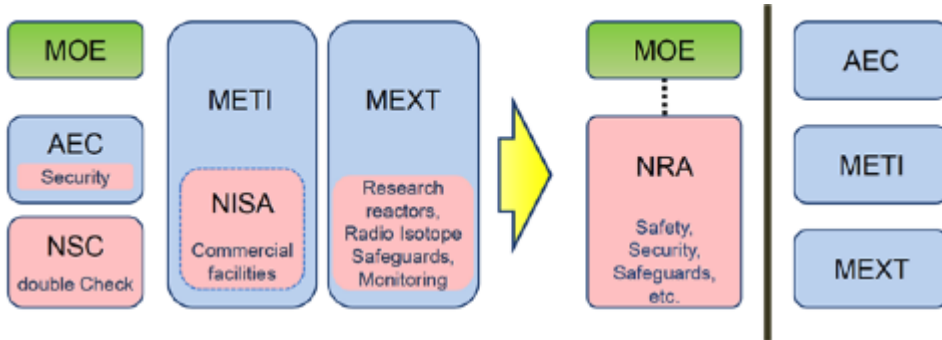
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AEC : Atomic Energy Commission  
 METI : Ministry of Economy, Trade and Industry  
 MEXT : Ministry of Education, Culture, Sports, Science and Technology  
 MOE : Ministry of the Environment  
 NISA : Nuclear and Industrial Safety Agency (abolished)  
 NSC : Nuclear Safety Commission (abolished)

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- □ Wikileaks(The Guardian, Thursday 25 August 2011)
- □ 가 가 가 (中外對話, Chinadialogue, 2013.3.19. )
- □ (
- Y Global Market Supply Chain
- □ 가 , Supply Chain 가
- □ mart -2012.1.17. ) 가 가 ( : 2012 e-
- □ Vendor 가 가
- □ NRC 가 가 (SECY-11-0154) 3 가 가
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- Y 3
- □ (1 ) TRM WENRA ( . . )
- □ (2 ) 3 2 ( . . )
- □ (3 ) . . 3 가 Observer (TRM+ )
- Y TRM Work Frame WENRA
- □ : , Harmonization Process
- □ Action Plan WG
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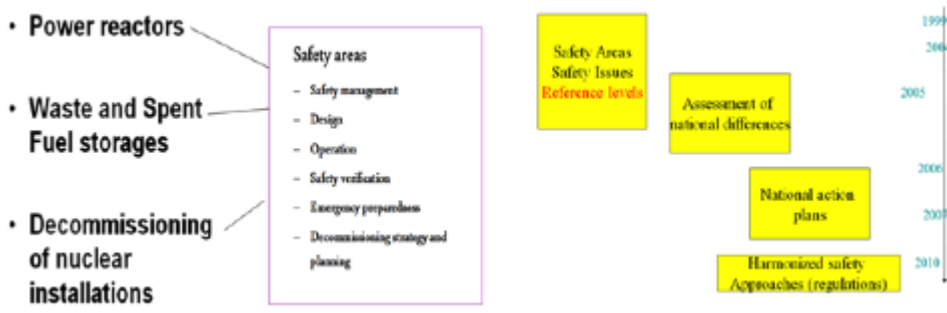
• - , , 가 가 가

• □ WENRA

- Y Harmonization (RHWG)
- □ 2005 Working Group 가
- □ IAEA 18 (Safety Reference Level)
- □ 가 가
- □ 가 Harmonization

Safety area	Safety issue	
Safety Management	A	Safety policy
	B	Operating organization
	C	Quality management
	D	Training and Authorization of NPP staff (jobs with safety importance)
Design	E	Verification and improvement of the design
	F	Design basis envelope for existing reactors
	G	Safety classification of structures, systems and components
Operation	H	Operational limits and conditions
	I	Ageing management
	J	System for investigation of events and operational experience feedback
	K	Maintenance, in-service inspection and functional testing
Safety verification	LM	Emergency Operating procedures and severe accident management guidelines
	N	Contents and updating of safety analysis report (SAR)
	O	Probabilistic safety analysis (PSA)
	P	Periodic safety review (PSR)
Emergency preparedness	Q	Plant modifications
	R	On-site emergency preparedness
	S	Fire protection against internal fires

**Table 1: Safety areas and issues**



□ ( : WERNA Brussel Meeting Presentation, J. Melin)

- Y , , (WGWD)
- □ RHWG
- Y (2011.3.22.-23)
- □ “ ”
- □ 가 ,

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• Υ Harmonization

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• □ 1 ( '04 ~ '06 ) : IAEA .

• □ 2 ( '07 ~ '10 ) : 6

• □ 3 ( '10 ~ ) :

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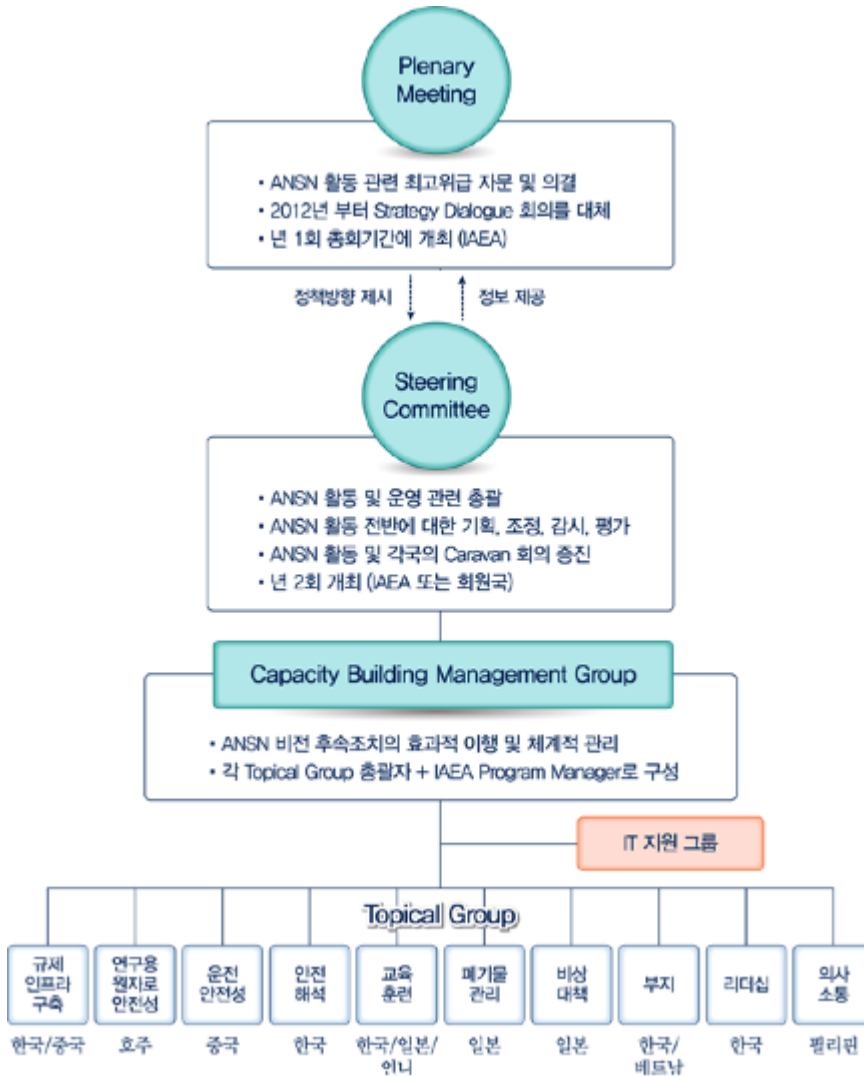
• □ IAEA

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