

## Organizational Structure in Korea's Nuclear Energy Development

J.H. Lee<sup>a\*</sup>, T.J. Lee<sup>b</sup>

<sup>a</sup> Nuclear Policy Research Division, Korea Atomic Energy Research Institute, Daejeon, 305-353, Korea

<sup>b</sup> Nuclear Training & Education Center, Korea Atomic Energy Research Institute, Daejeon, 305-353, Korea

\*Corresponding author: jhlee75@kaeri.re.kr

### 1. Introduction

This paper explores the cross-sectional and dynamic analysis of nuclear related organizations in Korea to systemize them.

Nuclear related organizations in Korea are classified into four large groups as commission, executive branch, public institution and private organization. Table 1 shows the nuclear related organizations in each group.

Table 1. Nuclear related organization in Korea

	Abbreviation	Full Name
Commission	AEC	Atomic Energy Commission
		AEC's Expert Commission
	NSC	Nuclear Safety Commission
Executive Branch	MEST	Ministry of Education, Science & Technology
	MKE	Ministry of Knowledge Economy
	MFAT	Ministry of Foreign Affairs and Trade
	MND	Ministry of National Defense
	MNFWA	Ministry of Health, welfare & Family Affairs
	MFAFF	Ministry for Food, Agriculture, Forestry & Fisheries
	Public Institution	KRCF
NRF		National Research Foundation of Korea
KAERI		Korea Atomic Energy Research Inst.
KINS		Korea Inst. of Nuclear Safety
KINAC		Korea Inst. of Nuclear Non-proliferation & Control
KIRAMS		Korea Inst. of Radiological & Medical Science
KONICOF		Korea Nuclear International Cooperation Foundation
KRMC		Korea Radioactive-waste Management Cor.
KNS		Korea Nuclear Society
KAIF		Korea Atomic Industrial Forum
KONEPA		Korea Nuclear Energy Promotion Agency
KEEI		Korea Energy Economics Inst.
Private Organization	KEPCO	Korea Electric Power Cor.
	KHNP	Korea Hydro Nuclear Power Co.
	KEPCO-ENC	KEPCO Engineering Co.
	KEPCO-NF	KEPCO Nuclear Fuel

AEC, NSC and their expert commission are all the commissions on nuclear energy. MEST, MKE, MFAT, MND etc. are executive branch related to nuclear energy. In addition, there are also government affiliated agencies, societies, associations and other different types of organizations carrying out tasks entrusted by the government concerning nuclear R&D and safety regulation. As for nuclear related private organizations, there are KEPCO, KHNP, KEPCO-ENC, KEPCO-NF etc.

### 2. Cross-sectional Analysis

Commissions operate independently, voting for a scheme of their expert committee. In the field of nuclear R&D, MEST and MKE, in the field of nuclear safety regulation, NSC, in the field of foreign affairs and national security, NSC and MND, and in the field of public health and radiation protection, MHWFA and MFAFF are performing the task related to nuclear energy

Public institutions are performing the tasks assigned from government under its supervision. KAERI, KIRAMS, KRMC etc. are performing the nuclear development. KINS and KINAC are performing the nuclear safety and control.

Private organizations perform their duties related to nuclear industry.

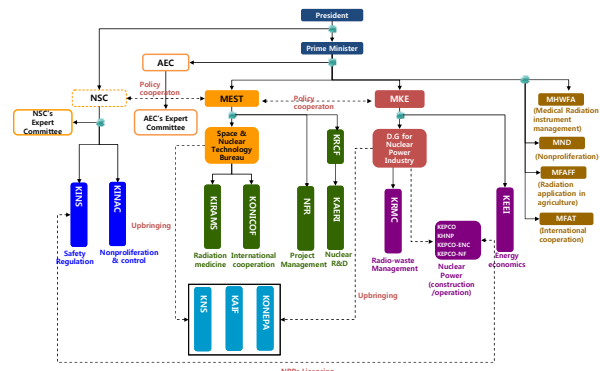


Figure 1. Cross-sectional relationship of nuclear organizations.

### 3. Dynamic Analysis

From 1950s to 1960s, before full-scale introduction and development phase of nuclear power plant and nuclear fuel cycle facility, it's the time of establishing the foundation for nuclear technology in Korea.

The government established the Atomic Energy Division (AED) in 1956, and then Office of Atomic Energy (OAE) and Atomic Energy Research Institute (AERI) in 1959 to form an administrative structure and related organizations in the nuclear field.

As the research on radioisotopes had been activated, government also established Radio-medical Research Institute (RRI) in 1963 and Radiation Research Institute in Agriculture (RRIA) in 1966.

From 1970s to 2000s, the full-scale construction plan for nuclear power plant was promoted in Korea. In compliance with this tendency, nuclear related organizations divided into two parts, such as basic research for science and application research for industry.

After administrative organizations related to energy industry came under jurisdiction of Ministry of Commerce Industry (MCI) in 1976, Ministry of Science and Technology (MOST) had managed fundamental research sector of nuclear energy.

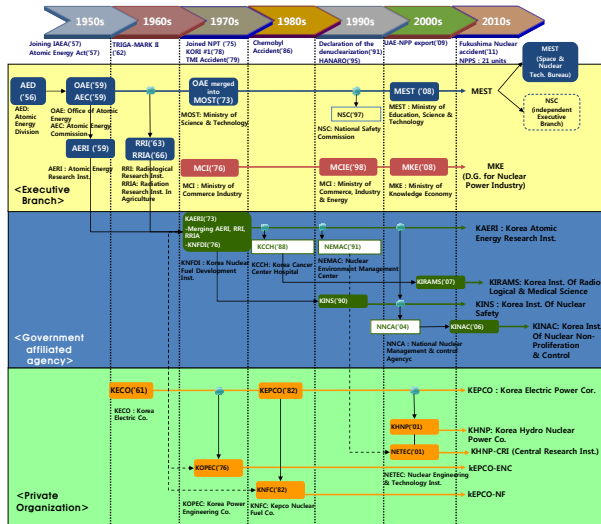


Figure 2. Evolution of nuclear organizations.

After 2000, organizations related to export of nuclear power plant as well as nuclear safety have been reinforced to cope with the changes surrounding nuclear field, for example, decision on radioactive-waste disposal site, export of NPP to UAE, the Fukushima nuclear accident etc.

#### 4. Conclusion

Due to the Fukushima accident recently occurred, the nuclear renaissance has been weakened and nuclear safety is considered more important than ever.

Therefore, for promoting nuclear technology, it's required to establish the independent organization to control the national nuclear policy.

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