

Nuclear Energy Policy Study in aspect of Legislation and Political Party's Declaration

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1. Introduction

Nuclear energy has been used as a major energy source for generating electricity because of economic efficiency and efficiency in Korea. Countries such as Japan and Korea that have a high dependency on imported energy sources such as oil and gas have continued to expand the proportion of electricity supply and demand through nuclear power generation. However, after the Fukushima accident occurred in Japan in 2011, many countries started to reduce their reliance of nuclear power energy and strengthened safety regulations as a global trend. In the aftermath of a strong earthquake in Gyeongju in 2016, the Korea government also declared the energy shift from nuclear energy to renewable energy such as wind and sunshine energy. The recent energy shifting policy is also boosted by the national assembly's legislation.

The purpose of this paper is to present the direction of future nuclear energy industry in Korea under the aspect of the national assembly's legislation and political Party's declaration.

2. Major legislations under review procedure in Congress

In this section the legislations currently under the review procedure are described as follows.

2.1. Special Proposal for Phase-Out Closing and Energy Conversion of Nuclear Power Plants

The purpose of this proposed law is to define the requirements for the gradual closure of nuclear power plants and the transition to an environmentally friendly energy source. The main contents are as follows. The National Energy Conversion Committee shall establish a basic plan for the gradual closure and energy conversion of nuclear power plants every five years, and establish and implement an annual implementation plan in accordance with the basic plan. In addition, the government should reexamine the plans related to energy and power supply such as

the basic plan for responding to climate change, the basic plan for power supply and demand, and re-establish them in accordance with the purpose of this law as soon as possible.

The target year for the gradual closure of nuclear power plants should be established by the National Energy Conversion Committee following the referendum procedure after collecting the public opinion and establishing the target year. The government will phase out all nuclear power plants by the target year, stop construction of ongoing nuclear power plants, and cancel plans for planned nuclear power plants. In addition, the government should support the energy use rights of the underprivileged and the employment of workers engaged in nuclear power plant related business in the process of closing the nuclear power plant, as the National Energy Conversion Committee does.

According to the legislation of this law, it will be necessary to gradually switch to a nuclear power plant shutdown and energy conversion R & D, and it will be necessary to secure new research resources such as provisions for dismantling nuclear power plants.

2.2. Some amendments to the Nuclear Damage Compensation Act

The current Nuclear Damage Compensation Act stipulates the limit of liability for nuclear operators to be 300 million SDR (about ₩ 500 billion KRW) in the event of a nuclear accident. Newly proposed legislation is to raise the responsibility of the nuclear power operator to 9 million SDR (1.5 trillion KRW), which is similar to that of Japan. The increase of liability shall be a financial burden to nuclear operators.

2.3. Some amendments to the Nuclear Energy Promotion Act

All nuclear power plants in Korea are expected to reach the expiration date of operation approval within the next 20 to 30 years. Despite the fact that it is necessary to technically prepare for the dismantling of nuclear power plants someday, we do not have all required technologies for dismantling yet. Only 41 out of 58 commercial technologies required for dismantling are currently achieved. It is argued that it is necessary to strengthen the response capacity for dismantling in a nation. The amendment bill aims to secure safe dismantling technology and sustainable future growth engines by adding the dismantling and dismantling technologies of nuclear

facilities to the deliberation of the Nuclear Energy Promotion Commission and the Nuclear Energy Promotion Plan.

According to the legislation of this bill, nuclear dismantling technology will be reflected in the direction of nuclear R & D emphasizing the building of a new plant to its dismantling.

3. Political Parties' energy declaration

This section describes the political policies of each political party.

3.1. Democratic Party of Korea "Abolition of Nuclear Power Development Policy"

The Democratic Party of Korea (the ruling party) insists that the new nuclear power plant construction plan be blanked and the life extension of old nuclear power plants be prohibited. It insists on applying the latest safety standards to all nuclear power plants throughout the country, continuously strengthening regulations, and reviewing spent fuel and waste management policies.

3.2. Liberty Korea Party "Obtaining economy and safety by securing dismantling technology of nuclear power plant"

The Party insists on developing 28 unconfirmed technologies of nuclear power plant dismantling technology (96 in total) by 2021. It is advocating the development of high-value-added remote dismantling equipment and IT convergence equipment, and seeking cooperation such as information exchange and joint R & D with advanced demolition countries such as the United States to assure national competitiveness.

3.3. Justice Party "Until 2040, 'nuclear zero'"

The Party dismisses the "Nuclear Promotion Policy" and insists on closing all nuclear power plants in 2040. It also prohibits the reprocessing of spent fuel, and insists on stopping pyro-processing and high-speed development.

4. Conclusion

From the above, most of the political parties'

declaration and the national assembly's proposed legislation show a tendency toward an energy policy shift from nuclear energy, that is currently accepting to the public. Stake holders of the nuclear energy field shall consider this trend and need to respond properly.

REFERENCES

- [1] Bill Information, www.likms.assembly.go.kr/bill/main.
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