

## **Review of Policy Documents for Nuclear Safety and Regulation**

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### **1. Introduction**

The goal of regulation is to protect public health and safety as well as environment from radiological hazards that may occur as a result of the use of atomic energy. In September 1994, the Korean government issued the Nuclear Safety Policy Statement (NSPS)[1] to establish policy goals of maintaining and achieving high-level of nuclear safety and also help the public understand the national policy and a strong will of the government toward nuclear safety. It declares the importance of establishing safety culture in nuclear community and also specifies five nuclear regulatory principles (Independence, Openness, Clarity, Efficiency and Reliability) and provides the eleven regulatory policy directions. In 2001, the Nuclear Safety Charter was declared to make the highest goal of safety in driving nuclear business clearer; to encourage atomic energy-related institutions and workers to keep in mind the mission and responsibility for assuring safety; to guarantee public confidence in related organizations. The Ministry of Science and Technology (MOST) also issues Yearly Regulatory Policy Directions at the beginning of every year. Recently, the third Atomic Energy Promotion Plan (2007~2011) has been established. It becomes necessary for the relevant organizations to prepare the detailed plans on such areas as nuclear development, safety management, regulation, etc. This paper introduces a multi-level structure of nuclear safety and regulation policy documents in Korea and presents some improvements necessary for better application of the policies.

### **2. Review of hierarchy of safety policies and relevant government documents**

Various types of policy documents have been developed for years and put into implementation for enhancing nuclear safety in Korea, however, there have been some difficulties in using them since the relationship among the documents was not clearly established and their characteristics, roles and functions were not well defined. For instance, Nuclear Safety Charter, the highest policy document, was declared 7 years later than the announcement of 1994 NSPS. Therefore, the characteristics of each document were analysed in the following to clarify the relationship among various nuclear safety related policies and documents.

#### 2.1 Nuclear Safety Charter [2]

The Korean Nuclear Safety Charter was announced in September 2001. It consists of a preamble that specifies the goals and safety philosophy, and 8 short sentences that propose the basic directions or principles which government and organizations concerned have to comply with and all employees working in Korean nuclear community must observe. Though it was established 7 years after the NSPS was announced, it has been regarded as the highest policy document among government policies and documents related to nuclear safety in Korea.

#### 2.2 Nuclear Safety Policy Statement

A policy statement is generally a high level official document that a government sets up to achieve a desirable status of the country in a specific policy area, typically comprising the policy goals, basic plans and implementation means. The Korean government established several policy statements such as the nuclear safety policy statement and the policy statement on severe accidents. In other countries, for instance, the policy statements on safety goals and severe accidents were also in use in the USNRC. The purpose of the policy statements is to provide nuclear industries and the public with notices and guidelines on regulatory positions related to safety matters, and to provide regulatory staff with directions to be followed in their work. More than 10 years has passed since the issuance of NSPS, and parts of the statement become ineffective and inadequate. Taking the implementation results of the policy statement of 1994 and the changing environment of nuclear industries into consideration, it has become necessary to develop a new Nuclear Safety Policy Statement that could cover the safety matters in coming decade. The development of new statement is under way.

#### 2.3 Comprehensive Nuclear Regulation Plan

Article 8-2 of Korean Atomic Energy Act requires the government to establish the Atomic Energy Promotion Plan [3] every five years, for promoting national nuclear energy policies in a systematic and consistent way. The plan sets the goals and basic directions of national nuclear energy policies on the basis of current status and prospects on the utilization of nuclear energy and its safety management. It delineates various projects and schedules for major areas. The area of "Enhancing

Nuclear Safety” in this plan deals with the Regulation plan that corresponds to the Comprehensive Nuclear Regulation Plan which is under development now.

### 2.4 Yearly Regulatory Policy Directions

The Korean Ministry of Science and Technology (MOST) announces the Nuclear Regulatory Policy Direction [4] at the beginning of every year. It contains the analysis of domestic and international nuclear trends, achievements in previous year, new regulatory directions and major tasks to be done in that year. All relevant organizations should establish every year the specific plans of their own reflecting the yearly regulatory policy direction and implement them.

From the analyses presented above, each policy document could be defined as follows; The nuclear safety charter provides the policy basis specifying goal and philosophy on nuclear safety; The nuclear safety policy statement declares the basic safety principles and the directions implementing nuclear safety charter; The comprehensive nuclear regulation plan specifies the mid- and long-term plan for the nuclear and radiation safety; The yearly regulatory policy direction contains the yearly plan for implementing major projects shown in the policy statement and comprehensive nuclear regulation plan; The specific regulatory implementation plan contains annual work scopes performed by the KINS.

Analyzing the relationship among the policy documents,

the hierarchy of safety policies and policy documents is constructed as shown in Fig. 1.

### 3. Concluding Remarks

Multi-level structure of nuclear safety and regulation policy that consists of policy documents was reviewed. For more consistent application of policy documents to enhancing nuclear safety, it is necessary to revise 1994 NSPS and develop nuclear regulation plan. The improved framework of nuclear safety and regulation policy will enhance the transparency of safety regulation and public confidence in organizations related to nuclear safety. With the policy directions suggested in all the policy documents, measures for safety enhancement in nuclear and radiation related facilities could be duly derived and effectively implemented. They are also expected to be referenced as a good basis of work plan to enhance nuclear safety by regulator and licensees as well for at least next 10 years ahead.

### REFERENCES

- [1] Korean Ministry of Science and Technology, Policy Statement on Nuclear Safety, Sept. 1994
- [2] Korean Ministry of Science and Technology, Nuclear Safety Charter, Oct. 2001
- [2] Korean Ministry of Science and Technology, The 2<sup>nd</sup> Atomic Energy Promotion Plan, Jul. 2001
- [4] Korean Ministry of Science and Technology, 2006 Nuclear Regulation Policy Direction, Mar. 2006

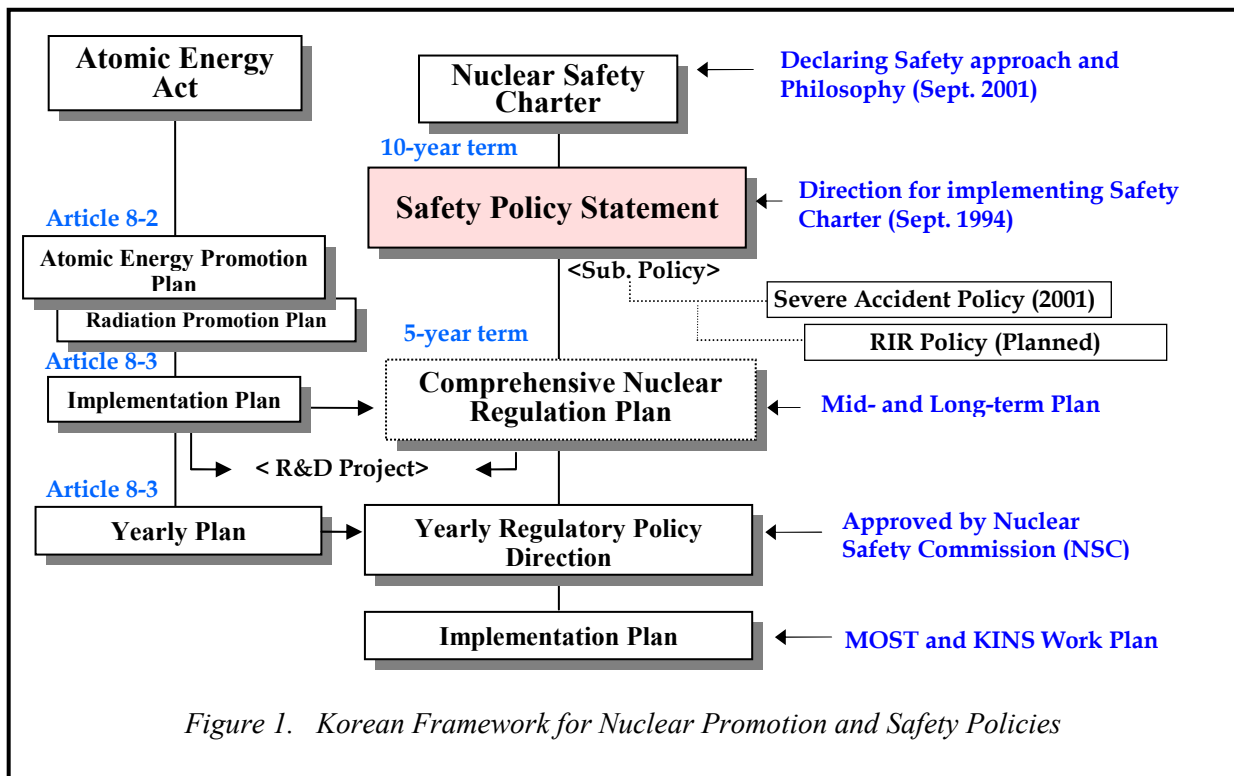


Figure 1. Korean Framework for Nuclear Promotion and Safety Policies