A Study on the Improvement of Security Guards System at Nuclear Power Plant

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1. Introduction

A special security guard system was introduced as a part of the government's policy to overcome the economic crisis and the normalization of public institutions due to the IMF financial crisis in 1998. Nuclear power plants are operated by police assigned for special guards (hereinafter "PASG") and special security guards (hereinafter "SSG"] in a dual manner, causing problems such as inadequacy of command system, surge of special guards, and deterioration of protection capability.

It is necessary to seek measures to implement the new government's policy of "regularization of irregular workers" and "prohibition of outsourcing of nuclear safety management related tasks and mandatory direct employment".

This paper looks into the current status of security guard system, and draws problems and improvements.

2. Concept and Type of the PASG and the SSG System

The PASG is responsible for all activities carried out for the public interest, safety and protection such as personal protection, public order maintenance, prevention of crime, arrest, investigation, etc.

The PASG in a practical sense, the public expense protects the person and property of the expatriate and the security guard from abrupt political and artificial threats (violence, illegal acts, traffic accidents, etc.) or natural hazards (fire, collapse of buildings and landslides).

The PASG in a formal sense, a guard activity of any fall within the power of referring to all the activities carried out by various agencies to guard passed through based on the costs Organization and circumstances law general expense authority.

The SSG refers to private organizations and individuals to provide the investigation, patrol, patrolling, alarm, guard, armed convoy, including all types of services related to the security.

The SSG in a practical sense, it means various activities to prevent risks to the customer's life and body in the private sector and protect property.

The SSG in a formal sense, the civilian expenses are those defined by the Act, regardless of the characteristics of the activities related to protection.

3. Difference between the PASG and the SSG

The PASG and the SSG can be equated with the purpose of protecting the security of the people and the society, considering that the object is ultimately an individual as a person.

In the application of public power, the public expense is given the authority including the various enforced rights to carry out its role, while the private expense is limited or restricted.

The purpose of this study is to investigate the effects of civilian expenses on the prevention of crime and the economic benefits of crime prevention. There is a difference in performing preventive functions for.

There are many differences between the two concepts as shown in the table below.

Table 1. Comparison between the PASG and the SSG

Division	PASG	SSG
Ideology	Public interest	Personal benefit,
	(publicity and	commissioned within
	legality)	the scope of what can be
	<i>C 3</i> /	done as a sign
Purpose	Law Enforcement	Loss reduction and
	and Criminal Arrest	property protection
Object	An unspecified	The specific person
	general public	(client)
	President, Key	
	Factors	
Operator	State agency	A commercial enterprise
	(government)	
Expense	Country	The specific person
		(client)
Ability	Strict selection	Disqualification, short-
	criteria and high	term training
	level of long-term	
	training	
Activity	Judicial processing	Party defense,
level		emergency evacuation,
		arresting actors, legal
		expiration of the control
		right of the sponsor
Activity	Including wide area,	A certain private area
area	public area,	
	important point	
Authority	Interrogation,	It is the same as the
	protection,	extent to which ordinary
	evacuation, search,	citizens can operate
	use of weapons,	without special authority
	prevention and	
	deterrence of crime	
A. C		

4. Current Status of Security Guards in Nuclear Power Plants

Prior to 2008, only the PASG was operated, but the government implemented the SSG system due to the government's policy with the financial crisis in 2009. By reducing the number of PASGs to 20 percent, Licensee began hiring SSGs and gradually increased the number of SSGs in accordance with the conditions of the nuclear facility.

However, according to the importance of physical protection, the duties, responsibilities and authority between the PASG and the SSG were clearly divided. The PASG conducts such as the access control and search in the protection area, the operation of the Central Alarm Station (CAS), the transportation protection, etc. And, the SSG conducts the access control in the limited access area, support of access management, etc. The SSG's rate is only limited to 35 % of total security guards. Nevertheless, the number of SSG has been increasing because the PASG are paying more than the SSG. So, the SSG's rate is more than 50% total security guards since 2015.

Therefore, a surge in the number of special security guards has raised concerns over the issue of compensation, welfare issues, and employment stabilization issues with PASGs.

5. Issues of the SSG Operation

The SSG belonged to the private company is contracted for every 2 years. Beside, the PASG belonged to nuclear power plant company is a regular employer. This led to make several issues as follows.

In April 2017, the leader of special security was killed by the SSG who was not succeeded due to the certain disqualification. In May 2017, JTBC reported the vulnerability of physical protection for nuclear power plant due to the employment of disqualified persons.

Also, the PASG and the SSG works together in the same facility, which makes operational and administrative problems between two security guards. In accordance with the Article 19 (2) of the Enforcement Decree of Police assigned for Special Guard Act and Article 9 of the Enforcement Decree of Guard Act, the licensee could entrust the authority for the PASG's assignment and control to the SSG.

There is a vicious circle in the order of low maintenance of SSG, formal recruitment procedures, hiring of low-level personnel, and frequent departure.

The KHNP employer has been constantly increasing the problem of identity and occupation of SSG by substituting SSG for natural decline of petition police because of unity of command and supervision and economical efficiency.

The security contractors are contracted at a low price due to the minimum bidding fee, and the maintenance fees of the SSGs are relatively low compared to the PASG, causing frequent conflicts and friction between the fraud and the security personnel.

Due to poor hiring standards for 'fined punishment' and 'mental retardation' that are classified as criminal offenses, there are problems such as insider threats being hired.

6. Improvement of Security Guard System

So far, we have examined the problems of SSG operations in nuclear power plant. Based on this, I would like to propose three ways (the establishment of subsidiary, the integration into the PASG, and the integration into the SSG) to improve the management of security guards at nuclear power plant.

6.1 Operation of Subsidiaries of NPP's Security Guard

The licensee establish a subsidiary company in KHNP to strengthen the physical protection of nuclear power plants and to implement government policies in a preemptive manner by securing excellent security capability, weakening vulnerability, guaranteeing the status of guard personnel, and realizing wages.

KHNP's total protection workforce (1,249 as of July 2006) will be integrated to operate a unified command system. In the event of a terrorist attack, low-wage indirect employment will be limited through nuclear power plants to nuclear plant facilities, which can cause a huge damage to the national economy in general, and direct employment through KHNP's subsidiaries. The SSG, who is an existing contractor, is transferred to a regular worker through appropriate recruitment procedures to ensure the status and occupation of the protection workforce.

In order to be able to select a resource that has no criminal mistakes, the qualification requirement is changed from "more than or equal to" to more than "fine". Through cooperation with the Korea Guard Association (or the Association of Guardian Guards), KHNP prepares thorough recruitment procedures such as KHNP's own professional qualification examination system, mental appraisal, identification, physical fitness, personality test, and in-depth interview.

It strengthens the managerial competence of the subsidiaries to be educated and overseen as well as the overall management of the existing capital stock, facilities and executives, and the security personnel.

A unified remuneration system corresponding to the limitation of basic rights at the petition police level will be provided to pay a higher salary than the minimum wage set by the Labor Standards Act, similar to the petty officer salary of the petition police.

When subsidiaries are operated, it is anticipated that the opposition of security firms due to the bankruptcy of existing special security service companies will increase. It is expected that there will be a big rebound from the hiring of new special hired security personnel, which is not recruited from the existing hired security guards.

When subsidiaries are operated, complaints such as treatment and welfare are expected due to the fact that the police officers belonging to KHNP are transferred to subsidiaries.

6.2 Integration into PASG

When integrating into the PASG, it is possible to solve the problems such as unification of security guards, direct employment of security guards, regularization of the irregular worker, securing the excellent manpower, realization of the wage. However, the following problems may occur.

At present, there are about 600 SSGs in nuclear power plants, and it is expected that the government will limit the number of new manpower from the government when it is integrated as the PASG.

The current 'Police assigned for Special Guard Act' is limited in terms of management and operation because it does not have the independent authority for appointment, education, compensation and discipline of petition police to the facility state.

Currently, there are some low-level guard workers in special security guards due to low maintenance and insecurity of the status guarantee.

6.3 Integration into SSG

When integrating into the SSG, the problem of unification of security guards can be solved, but the following important problems may arise.

It will be a big burden for the KHNP management because it is contrary to the government policy of the new government (regularization of irregular workers, prohibition of outside service).

The existing petition police are expected to be a big rebound by the petition police due to the insecurity of the status, the reduction of the right pay and the welfare benefits.

It will be a major obstacle to the efficiency of security work by bringing down factors of complaints such as low morale and frequent turnover of special security guards.

7. Conclusions

The Fukushima accident and the Gyeong-ju earthquake have greatly reduced the credibility of the nation's nuclear safety. In terms of security as well as safety, terrorism is occurring all over the world and it is demanding to strengthen physical protection.

In this study, the present situation of the protection workforce of the nuclear power plant in Korea was examined, and problems and improvements were derived.

Protection personnel in the physical protection of

nuclear power plants are among the most important factors. However, there are many problems in the operational and administrative aspects because the protection workforce is diverted to the PASG and the SSG. Therefore, this study suggested the establishment of subsidiaries, integration into the PASG, and integration into the SSG.

The improvement of the protection workforce involves a lot of costs, institutions, laws, and so requires a careful approach.

We hope that this research result will help improve the protection workforce management system and suggest that the proposed measures are suggested by individual researchers rather than government or institutional opinions.

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