

## 가설건축물 화재안전을 위한 제도 개선방안

System Improvement for Fire Safety Standards in Temporary Buildings

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SUMMARY

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Due to the gradual increase in temporary buildings, the number has reached 1/8 of the number of general buildings nationwide. Accordingly, fire accidents in temporary buildings are also steadily increasing and the number of casualties per fire accident is 2 to 10 times than general buildings. Temporary buildings are exempted from building regulations and firefighting standards on the premise of temporary use.

Under awareness of these problems, this study is to find ways to improve the regulations to prevent fire accidents in temporary buildings that may threaten public safety and reduce casualties and to suggest a phased implementation plan for promoting system improvement.

The main achievements of this study are summarized as follows.

- Achievement 1: Suggesting legal and institutional issues through comparative analysis of domestic and international legal systems related to temporary buildings

Comparing the domestic regulations related to temporary buildings with the regulations

of major foreign countries such as the United States, the United Kingdom, and Japan, the concept of domestic temporary building regulations is mixed with the concept of buildings for 'temporary use', which was the initial purpose of the regulation during the law revision process, and the concept of 'buildings with a lightweight structure'. In the case of major overseas countries, 'buildings with a lightweight structure' are not classified as temporary buildings for temporary use and have separate management regulations so it was confirmed that this is a unique feature to Korea. (❶ Issues in terms of installation requirements and types)

In addition, overseas countries where temporary buildings or lightweight structures intended for 'temporary use' are differentiated from general buildings apply appropriate building and firefighting standards to temporary buildings. On the other hand, building and firefighting standards are used as a means of relaxation of regulation and it was confirmed that firefighting standards were excluded in Korea. (❷ Issues in terms of building and firefighting standards)

In terms of administrative procedures, it was found that only Korea operates permission through a reporting procedure, while it goes through a sole permission process or building committee review in addition to permission in foreign countries. Furthermore, the legal basis for management and inspection was prepared and operated, which presented great implications for Korea. (Issues in terms of ❸ administrative procedures and ❹ management and inspection)

- Achievement 2: Identifying fire vulnerability and regulative improvement tasks for each type of temporary building in the high-risk group for fire accidents

Fire statistics are important data in order to identify high-risk groups for fire accidents. However, in the case of temporary buildings, there is a limitation to apply general fire accident statistics for figuring out high risk buildings since only some(three types) have fire statistics. In this reason, we conducted an AHP survey of related experts to draw fire accident risk groups(tents for storing goods, container temporary lodging, model houses, etc.) among various types of temporary buildings subject to construction reports as well as reviewing related previous studies.

Additionally, fire vulnerability factors for each type of temporary building were identified and the following system improvement tasks were suggested through

analysis of architectural characteristics of temporary buildings in the high-risk group of fire accidents and in-depth analysis of fire cases.

- Application of separation distance standards from adjacent buildings
  - Installation of initial fire extinguishing equipment
  - Installation of alarm equipment to detect fire
  - Differential application of standards for installation of firefighting facilities, etc. according to detailed use of temporary buildings
- Achievement 3: Establishing system improvement plans and phased system improvement plan to ensure fire safety of temporary buildings subject to construction reports

Based on the results of the previous analysis, the following plans to improve the system were suggested taking account of ensuring fire safety of temporary buildings subject to construction reports while considering the regulatory burden on regulated parties. Also a phased implementation plan for promoting system improvement was prepared.

System improvement ways related to fire safety in temporary buildings and a phased system improvement plan(draft) proposed in this study

section	System improvement ways	Subjected law (Revised/Newly established)	Agent of improvement	Phase		
				(short-term)	(intermediate-term)	(long-term)
① Improvement of installation requirements and administrative procedures	1) Reclassification of temporary buildings subject to construction reports and improvement of administrative procedures	Enforcement Decree of the Building Act	Architecture Policy Division, Ministry of Land, Infrastructure and Transport	● (reclassification)		
		Building Act and Enforcement Decree of the Building Act			● (Process improvement)	
	2) Improvement of retention period and extension regulations	Building Act and Enforcement Decree of the Building Act		●		

section	System improvement ways	Subjected law (Revised/Newly established)	Agent of improvement	Phase		
				(short-term)	(intermediate-term)	(long-term)
② Improvement of building and firefighting standards	3) Establishment of fire safety management subjects and reducing special cases	Enforcement Decree of the Building Act	Architecture Policy Division, Ministry of Land, Infrastructure and Transport	●		
	4) Establishment of new temporary building separation distance standards	Enforcement Decree of the Building Act		●		
	5) Establishment of new temporary building evacuation standards	Enforcement Decree of the Building Act		●		
	6) Management of temporary buildings with high risk of fire accidents as specific firefighting subjects(Preparation of legal basis for equipping minimum fire extinguishing equipment and fire recognition equipment)	Enforcement Decree of the Building Act, Enforcement Decree of the Act on Installation and Management of Firefighting Systems	Architecture Policy Division, Ministry of Land, Infrastructure and Transport, Firefighting Analysis Division, National Fire Agency	●		
③ Reinforcement of fire safety management	7) Improvement of construction report format	Enforcement Rule of the Building Act	Architecture Policy Division, Ministry of Land, Infrastructure and Transport	●		
	8) Establishment of new demolition regulations after retention period	Building Act			●	
	9) Reinforcement of charges for compelling compliance	Enforcement Decree of the Building Act				●
	10) Establishment of a new penalty system for illegal temporary structures	Building Act and Enforcement Decree of the Building Act				●
	11) Imposition of own safety management obligations for temporary buildings at high risk of fire accidents on building owners	Enforcement Decree of the Act on Installation and Management of Firefighting Systems	Firefighting Analysis Division, National Fire Agency		●	
		Building Management Act, Enforcement Decree of the Building Management Act	Architecture Policy Division, Ministry of Land, Infrastructure and Transport			●

Source: Written by researchers

**Keywords :**

Temporary Buildings, Fire Safety, Retention Period, Administrative Procedures, Building standards, Firefighting Facility Installation Standards, Management and Inspection