## 기존 건축물의 화재안전성능 보강을 위한 법제화 방안 연구

A Study on Legislation for Improvement of Fire Safety Performance of Existing Buildings

유광흠 Yu, Kwangheum 이종민 Lee, Jongmin 이민경 Lee, Minkyoung 진태승 Jin, Teseung

**SUMMARY** 

## A Study on Legislation for Improvement of Fire Safety Performance of Existing Buildings

Even though the recent enlarged damages due to fire of existing buildings require improved building performance measures which can be safe from fire, the policy for securing fire safety is propelled only to tighten up the standards of new buildings which has limits to enhance the fire safety performance of existing buildings. In the meantime, fire safety standards for new buildings are constantly strengthened whenever fire occurs, securing the fire safety to a considerable extent. However, since recent fires resulting in large—scale casualties are intensively occurred in buildings which are approved prior to the strengthened standards, it became necessary to prepare measures that can reinforce the fire safety performance of buildings before the reinforcement of fire safety standards. Despite the existing buildings with permission and approval prior to the strengthened standards still having a weak fire safety performance, however, there has been no measure to improve fire safety performance.

In fact, there various limitations in reinforcing the fire safety performance of existing buildings. Although granting the duty to the owner of the existing building to reinforce the fire safety performance has a public need as a national safety secure, technical legislation response is required since this issue is highly likely to violate the prohibition on retroactive legislation prescribed by the principle of Constitution. Also examination not to violate the principle of confidence protection is required through comprehensive consideration, such as cost on improving fire safety performance, disturbed businesses under construction, difficulty levels of construction, and acceptability of the target building owners, etc.

The purpose of this study is to induce improvement of fire safety performance of the existing buildings and suggest an improved system to enhance its effectiveness.

To do this, we proposed the method of management inspection and minimizing the possible damages of large-scale fires caused by several reasons, such as the usage characteristics of existing buildings, statistics of fire outbreaks, fire-related construction characteristics, etc. We also suggest the inspection of methods supporting the cost of reinforcing fire safety performance for buildings that are likely to cause large-scale casualties in case of a fire accident, and ways to review relevant laws such as the principle of confidence protection pursuant to retroactive application, and prepare the system to improve receptiveness by forming a public consensus.

This study is conducted in the following order.

Firstly, we performed an investigation on changes of condition and recognitions about fire safety through analyzing the legal system and surveying the public perception.

Second, we proposed a type of building to be reinforced according to building features which are related to the characteristics of its users and fire safety performance, and the procedure to select the buildings to be reinforced by site inspection.

Third, we estimated costs related to the enhancement of fire safety performance by simulating the application of the fire safety performance reinforcement method to the existing buildings and analyzed the similar financial supporting program. Through this, we proposed a financial program such as the scope of support, supporting method, and the scale of support for retroactive buildings.

Fourth, by reviewing legal principles of the retroactive legislation and methods of confidence protection for the owner of the existing building, we examined the legislation enforcement direction to reinforce the fire safety performance of the existing building, also suggesting the technical legislation alternative such as 「Building Act」 revision or an establishment of new law.

This study has its significance for proposing an institutional alternative to reinforce fire safety performance of the existing buildings, in order to solve the fire safety blind area which can prevent recurrence of large-scale casualties. We anticipate that the result of the study will give an opportunity to improve fire safety performance of the

existing buildings, inducing private participation with the application of incentives and regulations for ensuring fire safety performance.

## Keywords:

Building Fire Safety Performance, Existing Building, Incentive, Retroactive Legislation, Building Maintenance