防火避難性能設計建築物公共安全查核內容項目之探討

江崇誠,程欣弘
建築與都市計畫學系
建築與規劃學院
vincent@chu.edu.tw

摘要

The economic prosperity and rich life has facilitated the increasing diversification of life functions in Taiwan. However, for more efficient use of limited land resources, most of buildings have become more diversified, high-levelized and massive. Therefore, multi-functional architectural design and large-scale space have been increasing. Facing renovating construction method and materials, the conventional "prescription code" has limited the development of architectural design. In light of such situation, many countries had transformed the prescription code into "goal-oriented" "functional regulations" by the idea of equivalent security.

The existing related fire shelter and safety systems for buildings include building public safety inspection, fire equipment inspection systems. The objects of building public safety inspection are regulated by Item 5, Article 77 of Construction Law. But building public safety inspection could not give a perfect inspection on the buildings that their fire safety and shelter have been verified, calculated and evaluated. Moreover, "2008 National Urban Planning and Construction Regulation Conference" has mentioned, "Part of fire shelter facilities in large-scale composite-use buildings may be relaxed if their functions are designed and approved by the evaluation agency of building fire function. So the public safety inspection on composite buildings should not follow the example ordinary public safety mechanism."

As a result, the existing building public safety checklist cannot be used for inspecting the buildings that have been function-designed or passed through comprehensive reviews. So the building public safety inspection could not be implemented and function design system is questioned.

Therefore, the study, based on the shelter calculation in the Verification Know-How for Building Fire Prevention and Shelter Safety Function,

explored the factors that might affect safety shelter and compared them with the items in the building public safety checklist before analyzed the data. In the last step, we also gave an introduction to the safety factors of personnel shelter and smoke layer drop to make sure the feasibility of the check items by means of argumentation.

The study tried to explore the affecting factors of personnel shelter and smoke layer drop with building shelter and escape principle and “Verification Know-How for Building Fire Prevention and Shelter Safety Function”. After analyzing by argumentation, we established the items and contents of public safety inspection for the buildings in which their fire prevention and shelter function have been designed. The items could be divided into six items: interior decoration materials, entrance and exit, smoke extraction equipment, corridor (indoor channel), ceiling height and floor area. Among them, interior decoration materials could be further divided into two items, entrance and exit seven items, smoke extraction equipment 20 item, corridor (indoor channel) six items, ceiling height 14 items, floor area 11 items. It is hoped that the results could be a reference for the authorities in revising public safety inspection measures for the buildings in which their fire prevention and shelter function in future.
Keywords: building public safety, verification for fire prevention and shelter safety function

關鍵字：building public safety, verification for fire prevention and shelter safety function