



Discussion on Solution to the Problem of Fire Supervision in Urban Residential Buildings

Xinyou Liu

Beihu District Fire Rescue Brigade, Chenzhou 423000, Hunan, China
E-mail: 13237827@qq.com

Abstract: With the continuous expansion of the city, there is a remarkable trend in the diversified form of residential buildings, the fire safety management of residential community is becoming more and more prominent. In this paper, the fire safety management of residential buildings in the downtown area of Chenzhou city is taken as an example for analysis of its weak links, and then the corresponding improvement methods are put forward, so as to make some useful exploration for the improvement of fire safety management of residential buildings in the downtown area of Chenzhou city.

Keywords: residential buildings, fire safety, the fire prevention and control

1. Introduction

General Secretary Xi Jinping pointed out in his report to the 19th CPC National Congress that the principal contradiction facing Chinese society has been transformed from the one between the unbalanced and inadequate development and the people's ever-growing needs for a better life. In light of fire safety, the contradiction between the ideal and reality of residential fire safety has become one of the most prominent issues to be solved in fire prevention and control as people's expectations for a better life are constantly improving. As a fire supervisor, I hold the conviction that we should constantly improve the relevant laws and regulations on fire management, strengthen the fire supervision and management of residential communities, and take effective publicity and training means to improve residents' awareness of fire prevention so as to fundamentally control the current situation of high incidence of residential fires.

There are 1413 kinds of different residential areas in the downtown of Chenzhou, among which 630 residential areas with property management, 783 non-property management residential areas and 356 property service enterprises. In addition, there is a considerable part of the unit family residential area is independently managed. Different community management modes give rise to uneven fire safety management level. Even the residential community with property management, tremendous impediments can be generated due to the divergence of property party and the owner on fire management. There are many problems in most residential communities in aspects such as difficulty in supervision, severe hidden dangers, ambiguity of rights and responsibilities, long-term blockage of fire passageways, bringing inconvenience to the fire rescue work.

2. Current status of urban residential buildings on fire safety management

2.1 More fire hazards

Some residential areas built in a relatively earlier times were not equipped with fire hydrant. The fire hydrants were occupied, sheltered in some residential buildings with firefighting facilities and there is common phenomenon that the fire hydrant fittings were damaged. The maintenance list of automatic fire fighting facilities in the community is unclear, and the daily maintenance work is just a formality for formality's sake and the supervision departments shuffle the dispute over the maintenance funds required for fire fighting, resulting in the abnormal operation of maintenance funds. All these greatly reduce the fire safety factor of residential areas, once the fire can not be controlled in time, the final small fire into a big fire, causing serious consequences. In order to facilitate production and living and save space cost, residents convert the space originally used as garage into warehouse and hoard goods. The "Three-in-one" featured rental houses appear one after another, which increases the difficulty in fire firefighting in a disguised way. Once a fire breaks out, it is easy to cause heavy casualties and property losses. Due to the lack of parking spaces in urban planning, residents' parking spaces were less planned in the early stage. With the improvement of people's life style, private cars are on the rise, and there may be 2-3 family cars, leading to a serious shortage of parking spaces in the community, causing serious congestion of the fire driveway at night. Electric vehicle charging is not standardized, and electric vehicle charging device is not planned and designed generally in the old community, and the number of electric vehicles in the community is large and it is difficult to charge.

Charging for electric vehicle is not standardized, and electric vehicle charging device is not planned and designed generally in the old community, and the number of electric vehicles in the community is large and it is difficult to charge.

2.2 The inadequacy in mass prevention

From what we have learned that the vast majority of property management and community workers in downtown Chenzhou are not proficient enough in basic fire emergency skills. Although there are fire control centers in some residential areas contracted by property management companies, they do not reach the standard that all staffs on duty should be qualified with certificates. Management personnel failed to check the safety status of fire control facilities at ordinary times, and high-rise residential buildings often suffer from damage of fire control facilities, unauthorized disuse, lack of maintenance of fire fighting equipment and other problems. In addition, with the accelerated urbanization, the influx of rural migrant workers, frequent production activities increase the probability of fire disaster, but the awareness on fire safety is still in a lower level with the lack of fire skills and the incompetency to cope with fire, giving rise to their failure in analysis of the methods for fire escape in a calm manner and the incompetency in using the fire fighting equipment. In addition, the property and the owner are at different positions, and there are often differences in the consideration of issues. The property is a profit-making organization, and there are relations between the enterprise and the customer, as well as between the manager and the managed, with the community owner. It is quite difficult to resolve the contradictions between the two sides.

2.3 Lack of entity responsibility

The conditions for setting of property fire management institutions is not mature and there lacks professional and technical strength. Besides, there lacks the awareness of the demands for the professional fire safety management personnel and people with certificates as well as the short of talents. The property company failed to invest adequate funds in facility maintenance and the management personnel show ambiguous understanding of the firefighting without enough attention and measures. Besides, they are blindly optimistic with great fluke mentality, leading to the fire prevention at basic implementation stage and the concrete issues in fire fighting were disregarded. The units for fire protection facilities failed to conduct careful maintenance inspection with formalism. The personnel engaged in the maintenance of building fire control facilities are mainly composed of the personnel of the construction unit and the inspection unit of fire control facilities. The mobility of the personnel and the length of the time spent in the construction and inspection of fire control facilities are the concrete embodiment of the level of the maintenance, which leads to the employees can not really perform all the maintenance duties.

2.4 Insufficient regulatory capacity

At present, China's fire laws are not formulated with enough details to divide the fire safety management responsibilities of residential communities, and some work in fire safety responsibilities cannot be effectively implemented by grassroots departments, police stations and communities. Although the fire department has expanded the coverage of fire control supervision and management through grid management and the implementation of fire control supervision functions of police stations, it is far from enough to rely only on the management of public security organs and fire departments due to the limited police force and the numerous social units and community households.

3. Analysis of reasons on difficulty of fire safety supervision for residential buildings

3.1 Weak consciousness on fire control

Owners' awareness of fire safety does not adapt to The Times. There exist the phenomenon that the planning and design are not well conducted in some residential areas with the gap for fire control between buildings is insufficient. In addition, some owners park their vehicles at will on the inner roads of residential areas, and the tenants along the streets occupy the road for operation, blocking the passage of fire trucks. Evacuation can be hindered by the motorcycles and inflammable goods such as furniture in some residential building stairwell, doorway, stair corner and corridor. Charging in passageway of the residential buildings will bring severe hazards. The charging devices for concentrated vehicle charging are not covered in wide range and flying wire based charging can be frequently seen due to their weak awareness on fire safety. The fire-proof door was blocked by the owners to build rain-shed. For the sake of convenience, the owner open the closed fire door with heavy objects all the year round. As a result, it can not be closed normally, which is for convenience in transportation, causing fire hazard.

3.2 Aging fire fighting facilities

This district is the main downtown. There are many old residential areas, most of which are stair houses. The old

building fire fighting facilities are aged, and the daily maintenance of the property is not good, leading to the facilities can not be repaired in time. In addition, due to the low collection base of residential property fees and high maintenance costs of fire facilities and equipment, it is difficult to meet the needs of fire safety.

3.3 The fire fighting situation is complex

The rapid movement of urban personnel, unregulated group rent and supervision has brought difficulties. There are many old residential areas in the main urban area, which makes it difficult to manage the property. It is difficult for grass-roots police stations to supervise and cover them, and it is difficult for fire and rescue agencies to supervise and control each residential area in real time. The threshold for registration of property company is low, leading to the phenomenon that a large number of property practitioners without certifications and specific training to engage the work. Besides, they are not endowed with fire skills and knowledge based on the requirement, leading to the "People with certificate are not on duty, while those on duty are absent of certificates".

4. Suggestions on strengthening fire control safety management of residential buildings

4.1 To strengthen the entity responsibility in fire safety

In accordance with the requirements of fire control laws and regulations, governments at all levels should conduct unified organization for implementation of comprehensive treatment of fire safety, making clear that the village (neighborhood) community of villages and towns, streets can clarify the responsibility and specific person in charge based on the actual condition of the building in fire risk to formulate implementation programs and work plans, which are specifically responsible for the development of comprehensive control of fire safety in residential communities.

To strengthen the responsibility consciousness of fire safety management of all staff in the property company, we should firmly develop the concept of "Safety first, prevention the top priority" and "Everyone is responsible for fire safety". Everyone in the property company, from the property manager to the supervisor and from the supervisor to the staff, enjoys the responsibility and obligation of fire safety management. To sign fire safety responsibility book based on levels, set fire safety responsibility poster according to area, building and position, and effectively define the fire safety responsibility and task of each employee. The competent government authorities at various levels, grass-roots organizations and all enterprises and institutions of the fire control management duties shall be detailed in the form of rules and regulations, or file to earnestly implement the principle "Industry and business must be based on safety" for comprehensive governance. As a result, "Comprehensive management" can be achieved and the single work patten can be changed. Fire safety responsibility is linked with the credit rating of the unit, the loan amount of the enterprise bank, the proportion of the insurance claim settlement of the unit, personal economic interests, promotion and other political treatment as as to mobilize the enthusiasm of the officials and company employees in work fire safety and entrepreneurship. At the same time, we will put in place a regional joint defense system and a joint meeting system for coordinating and taking responsibility to avoid shirking responsibilities. Through these measures, we will form a long-term mechanism of "Government based leadership, neighborhood supervision, and self-governance by residents" to build a social governance pattern featuring joint contribution, joint management and shared benefits.

4.2 To strengthen the construction and maintenance of fire infrastructure

The government has clarified the procedures and lists of the maintenance fund and simplified the procedures for launching the maintenance fund. To strengthen the construction of fire control infrastructure in residential communities, governments at all levels shall, according to local conditions, construct fire prevention and fire fighting facilities in the public areas under their jurisdiction that are compatible with the actual urban development. Besides, governments should make ready the urban residential area of fire water sources and fire channels. The electrical wires that should be replaced in old downtown of some cities are aging. For some of the residential areas with low fire resistance, we must resolutely take measures to promote the transformation. Jobs should be well done in deployment of signs of illegal stop, escape and fire facilities in public areas to effectively strengthen the publicity in fire safety knowledge.

4.3 To constantly improve the ability in fire safety work

We will increase the examination and assessment of practicing personnel and improve their quality and ability.

Strengthen talent training and talent attraction, cooperate with colleges and universities to offer courses related to fire fighting. Besides, the education department should increase the investment in the education of fire protection profession to attract and train more high-level professional talents to serve the fire protection cause. Talents are always the most competitive

capital. Only by continuously increasing the relevant education investment can the whole industry develop rapidly and comprehensively improve the quality and ability of the employees. Government should promote the in-depth application of intelligent fire control, pay attention to cloud platform supervision and grid investigation, complete the construction of remote video monitoring for fire control rooms in key units, and effectively give play to the role of remote supervision and monitoring. An intelligent information exchange platform for communities, property management companies, grid operators and owners can be established to timely discover, remind and deal with all kinds of situations.

4.4 To strengthen fire propaganda and education, popularize fire knowledge

To strengthen safety publicity and education with focuses on the treatment of fire safety publicity and education and problems on inadequate drills, low master of fire safety and failure of residents in understanding escape for self-rescue and fire fighting skills can be resolved. To formulate resident fire prevention convention, organize and publicize fire safety common sense, strengthen people's awareness of fire safety, form general family fire prevention concept, understand the basic methods of fire fighting and rescue at the beginning. To irregularly report the recent fire safety warning education cases, and strengthen the awareness of fire safety of personnel.

4.5 To constantly strengthen law enforcement and inspection

To supervise the grass-roots law enforcement personnel and public security police stations of the street and part community to implement "grid" based management and continue to pay attention to "a village with an auxiliary police". Township government full-time fire brigade should carry out fire inspection and publicity work, strictly implement the "Double random and one publicity" fire supervision and inspection work without not leave a dead corner. The community without property can be integrated into peaceful establishment of jurisdiction unit, assessment in law. Those who fail to implement the examination and approval, supervision and inspection of matters related to fire control safety in accordance with laws, regulations and rules and regulations, or fail to rectify serious fire hidden dangers, shall be investigated for the responsibilities of relevant responsible persons and persons in charge according to the law and discipline. Leaders at all levels and relevant personnel who, due to their ineffective work, dereliction of duty or dereliction of duty to cause serious and extremely large fire accidents, or to cause heavy casualties and economic losses, and have a bad social impact, shall be investigated for legal responsibilities according to law. At the same time, urban management and comprehensive law enforcement bureau will be included into the scope of fire safety supervision and inspection functional departments, and administrative notification, card copying and other functions will be given to illegal parking behaviors that hinder the passage of fire trucks, and the responsibilities of departments will be effectively consolidated.

4.6 To implement strict fire punishment and incentive measures

Those who are given administrative penalty due to fire violations and those who are investigated for administrative or criminal responsibility for fire accidents can be listed in the fire safety "Blacklist". The credit subjects will be punished by the relative departments and constitutions with the fire department taking the lead and restrictions in administrative licensing, market supervision, qualification management, fiscal subsidies and credit management will be offered. For units that strictly implement fire safety laws and regulations and have no fire accidents within three years, they will be included in the "Honor list" of fire safety and will be rewarded with material rewards and punishments to encourage units and departments to participate in fire fighting.

5. Conclusion

In conclusion, it is of great significance to discuss the existing problems and causes of fire safety management in residential areas to curb the fire situation in residential areas. A fire supervisor in the new era should be steadfast to follow the new path with Chinese characteristics in the fire rescue, be committed to improving their professional technology level and be actively engaged in residential development channels of fire control propaganda to improve the fire safety consciousness of the public, helping the residential construction, grass-roots communities and property management companies jointly undertake the arduous task of preventing and defusing residential fire risks, and comprehensively controlling the residential fire situation.

References

- [1] Jiang Nianrong. Problems with Fire Safety Management of High Rise Residential Buildings and Countermeasures in China. *Journal of Chinese People's Armed Police Force Academy*. 2016; 32(8): 94-96.

- [2] Zhao Weidong, Zheng Liang. Analysis on several issues of fire protection supervision and management for high-rise residential buildings. *Science and Technology Innovation Herald*. 2011; (15): 214.
- [3] Chen Peng, Wang Da. Prominent Problems and Solutions of Fire Safety in City Residents Housing District. *China Public Security*. 2011; (1): 65-68.