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**Study of the use of lifts for evacuation during an emergency
(English Translation)**

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Foreword

This instructional document has been drafted in accordance with the rules given in GB/T 1.1-2009.

This guidance document is equivalent to translation method ISO/T R25743.2010 "Elevator for elevators for emergency evacuation research Study "(English version).

The following technical document has made the following editorial changes to ISO/T R25743.2010.

--- Remove the foreword ISO/T R25743.2010, because these are not suitable for China's national conditions and its existence or not on the guidance the understanding and use of technical documents have no effect;

--- ISO/T R25743.2010 "reference" has been adopted as the equivalent of China's national standard, directly included in the corresponding China National standard.

This guiding technical document is proposed and managed by the National Elevator Standardization Technical Committee (SAC/TC196).

This Guidance Document is responsible for the drafting of the unit. Condie Elevator Co., Ltd.

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Introduction

This guidance document is intended for research on the use of elevators for evacuation in various types of building emergencies. About using elevator the danger of emergency evacuation and the risks associated with it have been the subject of considerable controversy in recent years. Obviously, it is necessary to confirm what is at stake Risks and risks, and how to take some measures against buildings and elevators in order to minimize these risks and risks.

The purpose of this guidance document is to study the risks of personnel in evacuated buildings using elevators in the event of an emergency.

Elevator professionals and firefighters participated in the development of this technical guidance document. It is clear that elevator professionals are not architectural designers or Fire professional, therefore, the present guidance document does not address the issues in these areas. Its purpose is to confirm including building designers and Fire professionals need to study the problem. It is not always necessary to study in each architectural design the locations listed in this guidance document has a problem.

There may be many reasons why a building needs to be evacuated, such as a fire, explosion, chemical or biological attack, flood, storm damage, Earthquake and so on. Of course, not all of these events are related to every building and other risks, and the less probable ones may be overlooked as a result, architects should determine whether there is a large enough risk for a specific study.

For example, when designing a small office building in a metropolitan area, it is also theoretically possible to suffer a bomb attack or Learn to erode (terrorist action). However, this situation is unlikely to occur unless there are some special reasons that make it compelling or vulnerable ring. In most cases, the risk of these incidents is so low that it is not necessary to study them.

If buildings are used for the military's headquarters, this will increase their vulnerability to some forms of attack. It is absolutely necessary to consider the building or the explosion near the building or the chemical erosion of the building.

In general, buildings are built in non-seismic areas without further consideration of earthquake-proof measures.

If a building is built in the city center and becomes a famous landmark, all possible events need to be considered.

Designers of buildings should determine by risk assessment or other means what kind of events need to be studied. Once done these studies, if the elevator Used in any evacuation scenario, the block diagram of Figure 1 can be used to guide the issues that need to be considered.

The elevator or elevator group can easily evacuate people with disabilities, but if one considers the role of the elevator in the usual evacuation, the overall evacuation time is possible. It depends on the size of the building and the number of elevators.

Instead of focusing on evacuation of handicapped persons, this guidance document focuses on the use of elevators for evacuation What risks and risks may people be exposed to?

It should be noted that the elevator may play a role in the usual evacuation, but it turns out to be uneconomical. In many buildings in the design, it is recommended that the elevator should not replace the stairs, and the use of elevators to replace the stairs may greatly increase the evacuation time.

Elevator for emergency evacuation research

1 Scope

This guidance document focuses on the main risks associated with using evacuees in all types of emergencies.

The type of emergency that occurred in the building under study or its adjacent buildings is a fire, flood, earthquake, explosion, biological attack, or chemical Erosion, gas leaks, lightning strikes or storm attacks.

The purpose of this guidance document is to provide a method that is relevant and clear to the design of elevators and buildings, Whether the elevator can be used within an acceptable safety level.

This guidance does not consider all the risks of all buildings, nor does it consider that all elevators have all of the mentioned work can. According to the given building's importance, function, floor area ratio, status, geographical location, use, size, etc. to determine the buildings prone to events it is the responsibility of the designer of the building.

Determining whether an elevator can serve as a safe evacuation tool for a given building is not and can not be the responsibility of the elevator manufacturer to do the decision should be the responsibility of other relevant personnel. The elevator manufacturer can only provide some information about the ability of a particular elevator to be designed or at some point Suggestion of elevator status in specific situations.

The methods used in this report can be applied to buildings of any size, newly built and in use, but have proved to be applied to buildings in use it is difficult and uneconomic.

2 Terms and definitions

The following terms and definitions apply to this document.

Building Management System (BMS) buildingmanagementsystem Based on the information received, a system of intelligent decisions can be made.

Building manager buildingmanagement the person or organization responsible for the safe and effective operation of the building on a daily basis and for ensuring safe evacuation under evacuation strategies in emergencies.

Emergency command center emergencycommandcentre the function of a room or area inside or outside a building is to receive information, give instructions, and organize security in the light of the conditions of the events that have occurred evacuation.

Fire Zone (Fire Zone) firecompartment (fireseparatedarea) A particular area of a building whose walls, floors and ceilings are constructed of refractory material to block the fire at a given time Invaded.

Hazardous area Due to heat, smoke, gas, etc., it is dangerous for people on the floor or elevator shaft area.

The time required to evacuate requiredevacuationtime the time it takes for an elevator to start evacuation services and complete one or more levels of evacuation.