

Usage of Elevators for Occupant Evacuation Questionnaire

Purpose

This questionnaire is being conducted by the National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce.

The main focus of this research effort is to gain an understanding of how elevators are currently used by occupants of existing multi-story buildings in the United States during fire emergencies. This questionnaire will ask you to provide information on your building's emergency plans and procedures, including how the buildings' evacuation plans incorporate the use of the existing elevator system to evacuate occupants during fire emergencies, specifically individuals with disabilities, if at all.

Completing this questionnaire is voluntary; however, your assistance would be greatly appreciated to help improve the safety of the building occupants.

SECTION 1: Please answer the following questions about the building.

1. Name of building: _____
2. Location of building: City: _____ State: _____
3. What is the occupancy type of the building? Mark all that apply.

<input type="checkbox"/> Business	<input type="checkbox"/> Residential	<input type="checkbox"/> Assembly	<input type="checkbox"/> Health care
<input type="checkbox"/> Educational	<input type="checkbox"/> Institutional	<input type="checkbox"/> Detention/correctional	<input type="checkbox"/> Mercantile
<input type="checkbox"/> Industrial	<input type="checkbox"/> Storage	<input type="checkbox"/> High hazard	
4. Total number of stories above street floor: _____
5. Total number of stories below street floor: _____
6. Location of highest **occupied** story in building: _____
7. Location of lowest **occupied** story in building: _____
8. How many people work/reside in the building on a normal day: _____ (please provide an approximate number here)
9. Total number of exit stairways located in the building: _____
 - a) Total number of exit stairways located above the street floor: _____
 - b) Total number of exit stairways located below the street floor: _____
10. Total number of elevators (of all types) located in the building: _____

Complete Table below for each elevator car located in the building:

Elevator Car Number(s) (e.g., 1, 2, C, etc.)	Use of Elevator Cars (e.g., passenger/public elevators, parking elevators, private elevators, freight elevator, service elevator, passenger/service elevator)	Type of Elevator Cars (e.g., electric, hydraulic)	Capacity of Elevator Car (maximum number of people)

11. Can at least one elevator car in your building accommodate an ambulance stretcher?

Yes No Don't know

a) If yes, please identify each elevator car that can accommodate an ambulance stretcher (e.g., 1, 2, C, etc.): _____

12. Is the building protected throughout by an automatic fire sprinkler system?

Yes No Don't know

13. Are automatic fire sprinklers installed in each elevator machine room?

Yes No Don't know

14. Is there a fire alarm system, including notification appliances and a control panel, installed in the building?

Yes No Don't know

15. Does the building have an occupant evacuation plan (sometimes known as a fire safety plan, as a fire evacuation plan, or by another name)?

Yes No Don't know

16. Are elevators used to evacuate building occupants during fire emergencies as part of the building's occupant evacuation plan?

Yes No Don't know

If the answer to Question 17 is "Yes", please answer the questions in Section 2

SECTION 2: Please answer the following questions about your building's occupant evacuation plan.

17. Elevators are used to evacuate *some or all* occupants during which of the following types of fire evacuation procedures in the building?

- Partial evacuation only
- Full/complete evacuation only
- Both partial evacuation and full/complete building evacuation

Definitions to assist with Question 18:

-Partial evacuation is defined here as a procedure where occupants on the floors most affected by the fire are evacuated by elevators or relocated by elevators to a safer floor in the building.

-Full/complete evacuation is defined here as a procedure where all occupants evacuate the building and traverse to a pre-determined location outside of the building.

18. During a fire emergency, the occupant evacuation plan permits elevators to be used by the following individuals.? Please mark all that apply

- Any occupant in the building
- Any occupant on the fire floor
- Any occupant in the fire evacuation zone (for example, the fire floor, two floors above, and two floors below)
- Individuals with disabilities or mobility impairments only
- Others, please specify: _____

19. What information is included in the occupant evacuation plan that determines which occupants are eligible to use the elevators during fire emergencies?

- This is not necessary, since anyone can use the elevators during fires
- The building's fire safety staff designates a person as an elevator user before the fire occurs (during fire safety planning)
- The building's fire safety staff designates a person as an elevator user during the fire emergency
- The floor's fire safety staff (e.g., floor warden) designates a person as an elevator user before the fire occurs (during fire safety planning)
- The floor's fire safety staff (e.g., floor warden) designates a person as an elevator user during the fire emergency
- The fire department designates a person as an elevator user before a fire occurs (during fire safety planning)
- The fire department designates a person as an elevator user during the fire emergency
- The occupant designates him/herself as an elevator user before a fire occurs (during fire safety planning)
- The occupant designates him/herself as an elevator user during the fire emergency
- Other, please specify: _____

20. What types of elevators are used for evacuation during fire emergencies? Please mark all that apply.

- Freight Passenger/public Parking Private Service
 Other, please describe: _____

[If the respondent filled out Question 11's chart – redisplay the chart **with all original information from the respondent** with an added column for them to check – as shown here...]

Elevator Car Number(s) (e.g., 1, 2, C, etc.)	Use of Elevator Cars (e.g., passenger/public elevators, parking elevators, private elevators, freight elevator, service elevator, passenger/service elevator)	Type of Elevator Cars (e.g., electric, hydraulic)	Capacity of Elevator Car (maximum number of people)	Please mark which elevator cars are used for evacuation
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

21. During a fire emergency, please describe the entire process that occupants should follow from the moment that the evacuation is initiated until the point when they reach safety. If these procedures vary by floor or by occupant type, please describe how.

22. Which individual(s) or building system(s) determines the elevators are no longer safe to use for evacuation? Please mark all that apply.

- Building manager
 Building engineer
 Building fire safety director
 Member of building's fire safety team (e.g., floor warden)
 Fire department
 Activation of smoke detection system
 Activation of fire sprinkler system
 Other, please specify: _____

23. Are the elevators used to evacuate individuals during fire emergencies on “normal elevator operating mode” (i.e., the same mode that is used prior to the emergency)?

Yes No Don't know

24. Are the elevators used to evacuate individuals during fire emergencies on Phase II recall?

In Phase II recall, the responding fire department uses the elevators under manual control by placing a firefighter in the elevator car or cars (operated with a special fire fighter key).

Yes No Don't know

25. Do the elevator procedures specified by the building's occupant evacuation plan include any of the following?

a) Dedicated individuals (who are not fire fighters) operating elevators during evacuation?

Yes No Don't know

If yes, who is responsible for this duty (elevator operation)? _____

Please describe the specific duties of these individuals? _____
(e.g., manually press the buttons or choose where the elevator stops)

What are the minimum training requirements for this job? _____
(if none, please note that)

b) Dedicated individuals (who are not fire fighters) assigned to each elevator landing (also known as elevator lobby)?

Yes No Don't know

If yes, who is responsible for this duty (lobby monitor)? _____

Please describe the specific duties of these individuals in the elevator landing or lobby? _____
(e.g., make sure the elevators are not full, etc.)

What are the minimum training requirements for this job? _____
(if none, please note that)

- c) Dedicated individuals (who are not firefighters) assigned to assist individuals with disabilities or mobility impairments to evacuate?

Yes No Don't know

If yes, who is responsible for this duty (assistance of people with disabilities)?

Please describe the specific duties of these individuals? _____
(e.g., guide evacuees to the elevators, etc.)

What are the minimum training requirements for this job? _____
(if none, please note that)

26. Is an emergency two-way communication system provided within each elevator car to communicate between the elevator car and a manned location?

Yes No Don't know

27. Is an emergency two-way communication system provided within each elevator landing (also known as the elevator lobby area) to communicate between the elevator landing and a manned location?

Yes No Don't know

- a) If no, are two-way radios used by the floor wardens to communicate with a manned location?

Yes No Don't know

28. Please provide additional comments on your building's occupant evacuation plan and its relevance to elevator usage.

If you would like to upload a section of your building's occupant evacuation plan that describes elevator usage, please provide this information here. *The text from the plan will only be used internally for analysis of elevator usage trends and none of the text will be linked to the building or will be quoted in final reports.*

29. Would you mind being contacted in the future about your building's occupant evacuation plan?

Yes No

Respondent Information (optional):

30. What is your job title? _____

31. Please describe your duties in planning for emergencies in your building.

32. Please describe your duties in responding to emergencies in your building.

33. Does your building conduct full building fire evacuation drills at least once per year?

Yes No Don't know

a) If yes, how do occupants practice fire evacuation drills?

- Evacuation via stairs only
- Evacuation via elevators only
- Evacuation via both, depending upon the needs of the occupants
- It depends, please specify how. _____

NOTE: This questionnaire contains collection of information requirements subject to the Paperwork Reduction Act (PRA). Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number. The estimated response time for this questionnaire is 15 minutes. The response time includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this estimate or any other aspects of this collection of information, including suggestions for reducing the length of this questionnaire, to the National Institute of Standards and Technology, Attn., Erica Kuligowski, erica.kuligowski@nist.gov, 301-975-2309.