Wind-Driven High-Rise Fires

Pre-Test

Correct answers are highlighted

1. Which statement about size-up at a wind-driven high-rise fire is incorrect?

    a) In a building with scissor-type stairs, the apartment and stairway layout should be surveyed on the floor below the fire
    b) Size-up should include whether duplex apartments are present
    c) Length, size, and configuration of the public hallways are part of the size-up
    d) Checking the layout of the apartment below the fire apartment will be beneficial if possible
    e) The number of apartments per floor is a factor in size-up

2. Which of the following ventilation profiles would indicate a wind-driven fire?

    1. Flames lapping out of the top half of the window, auto exposing the apartment above
    2. Heavy smoke leaving the window and immediately moving vertically
    3. Fire venting sideways out of a window
    4. Fire visible in an apartment, but not venting
    5. Nothing visible from the exterior

    a) 1,2
    b) 1,3
    c) 3,5
    d) 1,4
    e) 3,4

3. Where should wind conditions be assessed to determine whether wind will be a factor at a fire?

    a) Based on the weather report received at the start of the tour
    b) The floor above the fire, assessed by the “floor above” team
    c) The street level upon arrival
    d) During response

4. Which of the following describes a correct way to control a “flow path”?

Please turn over

a) Closing the door to the fire apartment and the stairways on the fire floor
b) Opening as many doors as possible will give multiple outlets for the fire, removing the flow path
c) There is no way for members on scene to control a flow path
d) Early ventilation of the bulkhead door (roof top) to the attack stairway should be a high priority
e) None of the above

5. Which statement properly describes the movement of smoke and heat at a fire in a building?

a) Smoke and heat always rise in the building
b) Smoke and heat always move to the exterior of the building
c) Smoke and heat always move from a higher pressure zone to a lower pressure zone
d) Smoke and heat movement is not predictable

6. Which of the following statements about wind blowing into a fire apartment window is incorrect?

a) If the outside temperature is below freezing, the wind will cool the fire, reducing the danger to firefighters
b) The wind is pressurizing the fire area
c) The wind may over-pressurize the fire area, causing flames to occasionally vent out the window
d) The situation may require alternative strategies and tactics in order to extinguish the fire

7. When presented with wind blowing into a vented fire apartment window and the need to commence operations on the fire floor, which option is the best choice?

a) Deploy a wind control device (WCD) over the open window
b) Wait for the wind to die down
c) Vent the remaining windows in the fire apartment from above
d) Begin normal firefighting operations
e) None of the above

8. Which statement about the fireproof curtain (wind control device) is correct?

a) The curtain is composed of material designed not to burn
b) There are ropes attached to all 4 corners
c) The curtain is approximately 6’ x 8’
d) All of the above are correct
e) None of the above are correct

9. Which of the following statements about deploying the fireproof curtain (wind control device) is correct?

    a) Two firefighters are required to carry the curtain
    b) The member must fully vent the window above with the 6’ hook
    c) The member must have his or her face piece on when deploying the curtain, and should not lean out of the window
    d) All of the above
    e) None of the above

10. Which statement about positive pressure ventilation is correct?

    a) It uses the same concept as the SCBA face piece: the higher pressure inside the face piece does not allow contaminants to enter
    b) The goal is to make the stairwell a higher pressure zone than the fire
    c) It can be used to remove smoke from a stairwell
    d) All of the above

11. When properly employed, positive pressure ventilation will result in which of the following?

    a) Increased visibility in the stairwell
    b) Increased heat in the stairwell
    c) Toxic smoke in the stairwell
    d) All of the above
    e) None of the above

12. What is the proper angle for the positive pressure ventilation (PPV) fan to be set at?

    a) 45°
    b) 80°
    c) 90°
    d) 100°
    e) None of the above

13. What is the main advantage of using positive pressure ventilation (PPV) fan(s) to pressurize the attack stairway?

    a) PPV eliminates wind from entering the apartment
    b) Fleeing occupants are comforted by the flow of air as they exit
    c) PPV increases visibility and reduces temperatures in the stairwell
    d) PPV draws the fire to the stairway
    e) None of the above

14. Which of the following statements regarding the use of the high-rise nozzle is correct?

    a) The high-rise nozzle should only be used as a last resort after all other options have been exhausted
    b) The high-rise nozzle must be hooked into the window on the fire floor from below
    c) If no spotter is present, the officer should utilize the sound the stream is making to help determine proper placement and direction of the stream
    d) The proper pressure to supply the nozzle is 50 psi at the standpipe outlet

15. Which of the following statements about using the high-rise nozzle is correct?

    a) The preferred spray is a fog pattern into the bottom of the window
    b) The stream should be deflected against the spandrel wall for optimal extinguishment
    c) The stream should be directed off the ceiling of the fire apartment
    d) The stream will have to be operated for 15 minutes to 30 minutes to have any noticeable effect on the fire