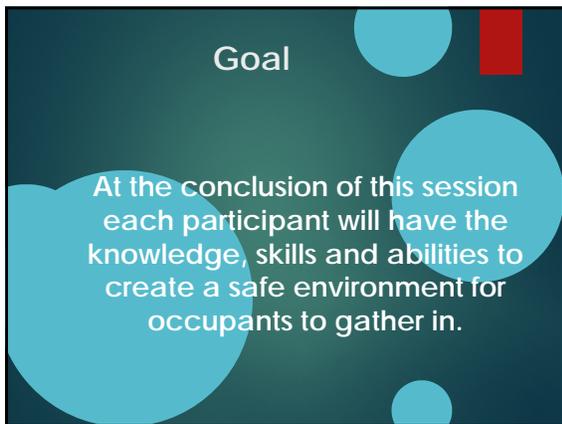
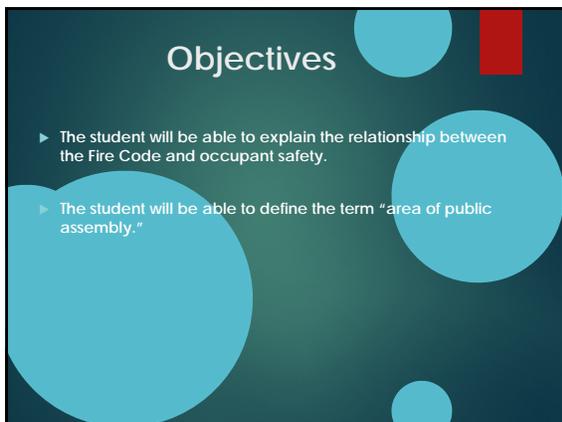


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Objectives

- ▶ The student will describe the role of a "Crowd Manager".
- ▶ The student will describe the steps to be taken in preparation of holding an assembly event.

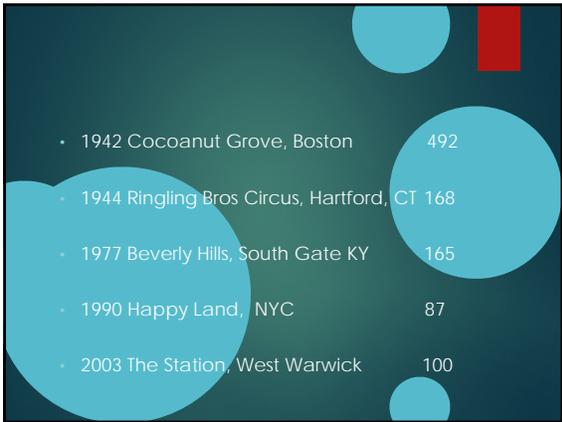
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Some History about significant Assembly occupancy fires with life loss

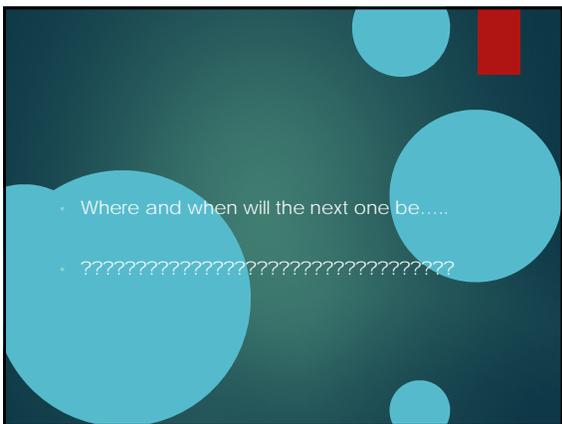
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- 1811 Richmond Theater, Richmond 160
- 1876 Conway's Theater, NYC 285
- 1903 Iroquois Theater, Chicago 602
- 1940 Rhythm Club, Natchez MS 207

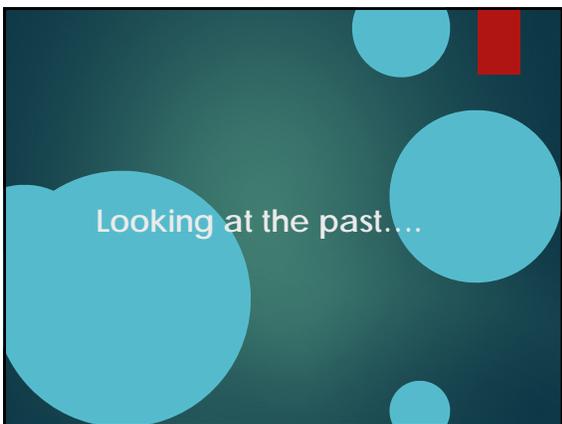
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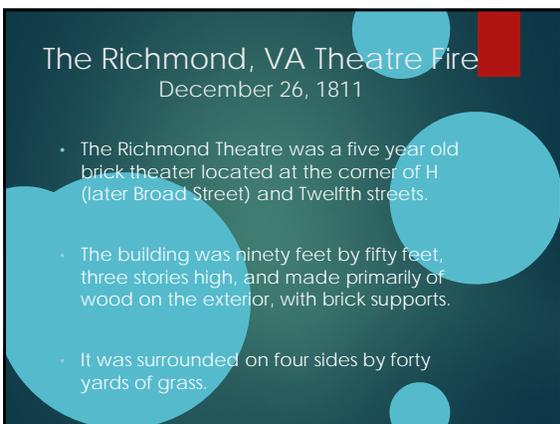
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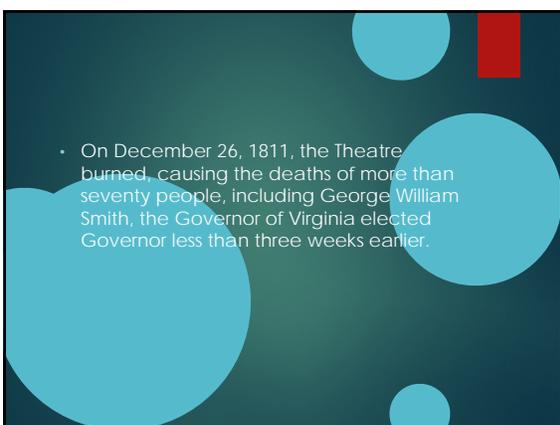
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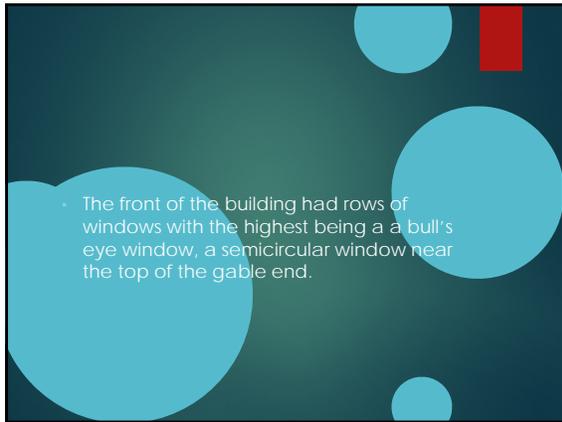
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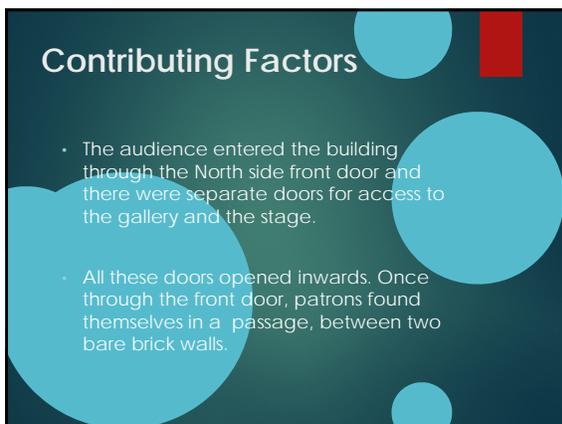


12



- The front of the building had rows of windows with the highest being a bull's eye window, a semicircular window near the top of the gable end.

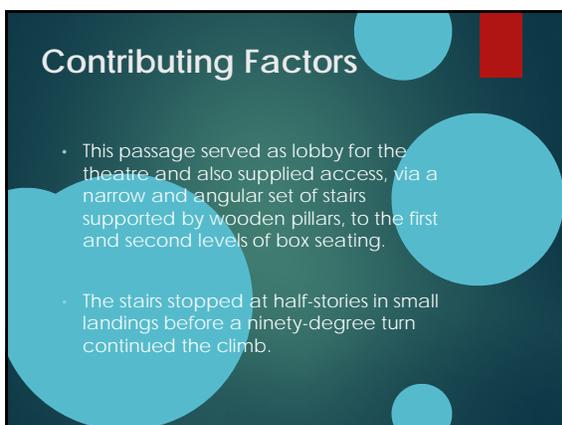
13



Contributing Factors

- The audience entered the building through the North side front door and there were separate doors for access to the gallery and the stage.
- All these doors opened inwards. Once through the front door, patrons found themselves in a passage, between two bare brick walls.

14



Contributing Factors

- This passage served as lobby for the theatre and also supplied access, via a narrow and angular set of stairs supported by wooden pillars, to the first and second levels of box seating.
- The stairs stopped at half-stories in small landings before a ninety-degree turn continued the climb.

15

Contributing Factors

- A lit chandelier was mistakenly raised catching backdrops and then the roof on fire at the end second play's first act.
- The occupants sitting in the two levels of raised boxes were forced to exit down a single, narrow, winding staircase, which soon collapsed. Others threw themselves out second- and third-story windows

16

History

- At the time it was the deadliest urban disaster in American history.
- On the night of the fire, more than 600 people, or about 6 percent of the city's population, attended the theatre to watch two full-length plays.

17

VIDEO



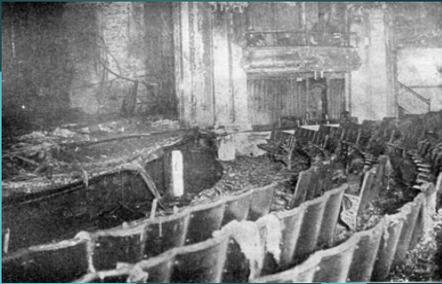
18

This Event.....

- Caused the Common Council to commission a Committee of Investigation. On December 27, 1811.
- The Committee absolved the Placide & Green Theater Company of responsibility.
- Blamed the inferior design and construction of the theater building for the great loss of life

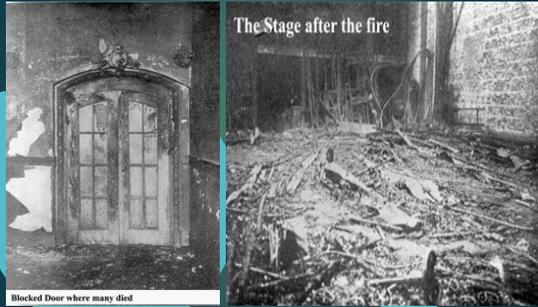
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THE IROQUOIS THEATER FIRE



20

THE IROQUOIS THEATER FIRE



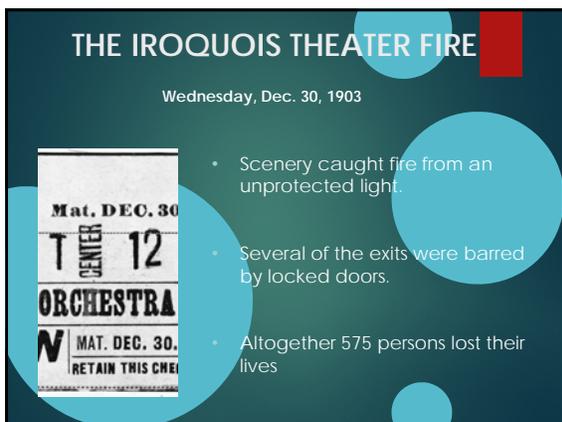
Blocked Door where many died

The Stage after the fire

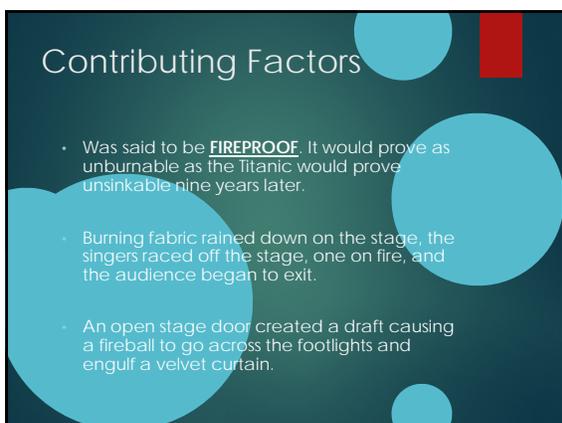
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22



23



24

Contributing Factors

- The asbestos stage curtain, dropped to keep the blaze from spreading to the seats, got stuck a few feet above the stage floor allowing spread of the fire into the audience area.
- A part of the stage collapsed, the lights went out touching off a stampede for the 27 exits, some hidden by drapes and others locked to foil gate-crashers.

25

Contributing Factors

- Within minutes, tangles of corpses were piled 7 feet high as the living groped for an escape route over the dead, only to succumb themselves to gas, smoke and flames.

26

This Event...

- **FIRE PROOF** became **FIRE RESISTIVE**.
- Changed the way we looked at interior finishes.
- Brought about change in the flammability of wall & ceiling coverings.
- Panic hardware was developed.
- Caused inspection of theatres across the Country for fire safety compliance.

27

Triangle Shirtwaist Factory Fire

A picture of an interior floor post fire



28

Triangle Shirtwaist Factory Fire



29

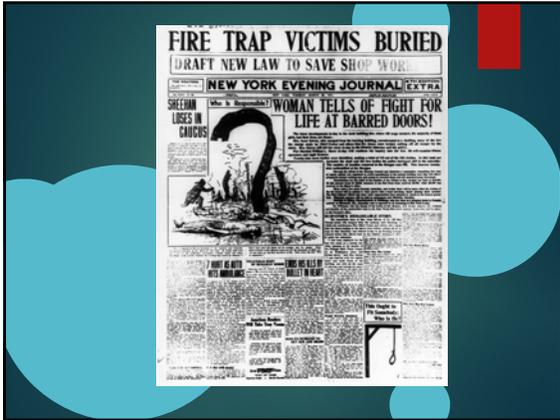
Triangle Shirtwaist Factory Fire

March 25, 1911



- Three stories of a ten-floor building caught fire.
- 141 men and girls died.
- All 141 were burned to death or killed by jumping to the pavement below.

30



31

Contributing Factors

- A working environment filled with combustible materials.
- Inadequate means for workers to escape.
- A fire department ill-equipped to extinguish a blaze in such a building.
- Investigators concluded that a discarded cigarette ignited the fire, and containers filled with garment waste throughout the factory allowed the fire to spread rapidly.

32

Contributing Factors

- While water buckets were located throughout the building to put out fires, some in the building during the fire said the buckets were empty.
- The fire began on the eighth floor of the 10-story building. As it spread, executives on the 10th floor were notified, yet workers on the 9th floor were unaware of what was happening until the flames reached them.

33

Contributing Factors

- The building had only one fire escape.
- Doors to stairwells leading out of the building had been locked by the building's managers, allegedly to prevent workers from stealing materials.
- The doors also opened inward, making it more difficult for workers to exit.

34

Contributing Factors

- The laws in New York City at the time did not require buildings to contain sprinkler systems, nor were they required to conduct fire drills.
- When firefighters arrived on the scene, their ladders were not tall enough to reach the eighth floor of the Asch building, and the nets they deployed to catch workers often ripped upon impact.

35

News Accounts

- News accounts of the fire shared stories of workers trapped on the upper floors of the 10-story building leaping to the street below as they were unable to exit through stairwells or fire escapes.
- The only accessible fire escape ended at a second-floor skylight, and it collapsed during the fire under the weight of workers attempting to flee.
- On December 1911, factory owners Isaac Harris and Max Blanck were indicted and tried on seven counts of first- and second-degree manslaughter because they knew the exits were locked, preventing workers from exiting the building. They were acquitted of all charges.

36

This Event...

- Brought about the "Panic Hardware" for egress doors.
- Occupancies serving 100 or more persons must have panic hardware on the egress doors.
- Occupancies serving 50 or more persons must have doors that swing outward.

37

Beverly Hills Supper Club

May 28th, 1977

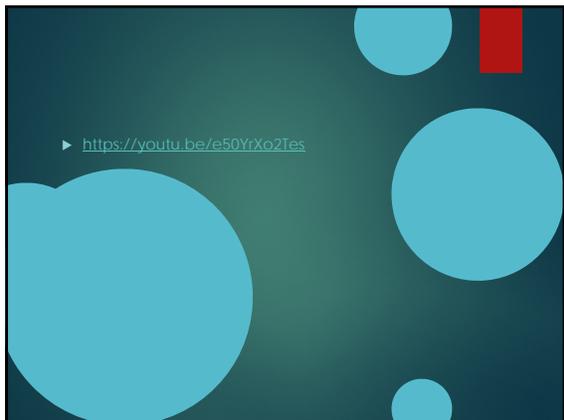


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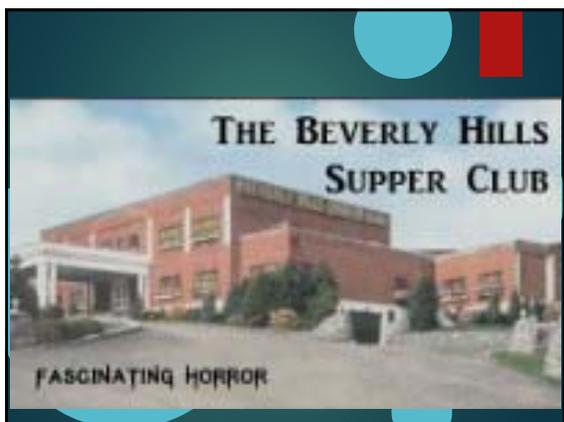
Beverly Hills Supper Club



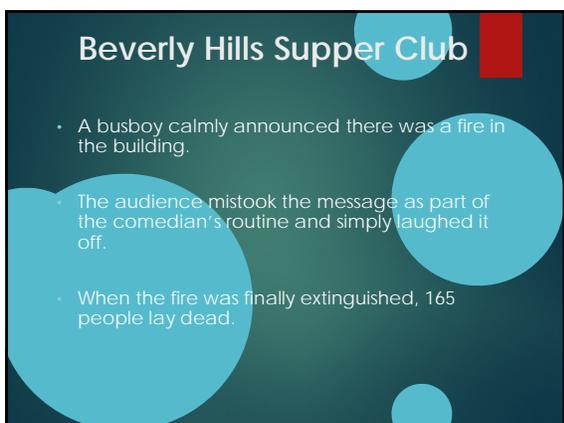
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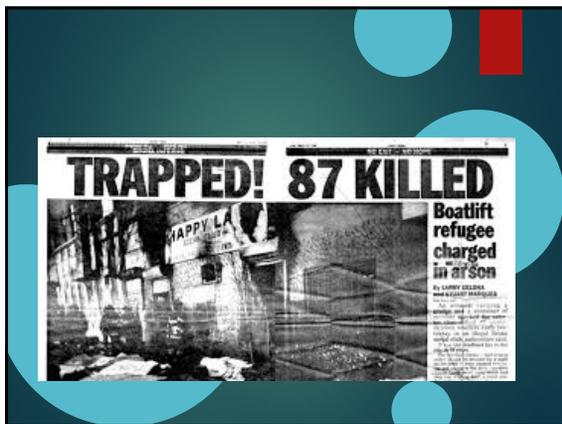
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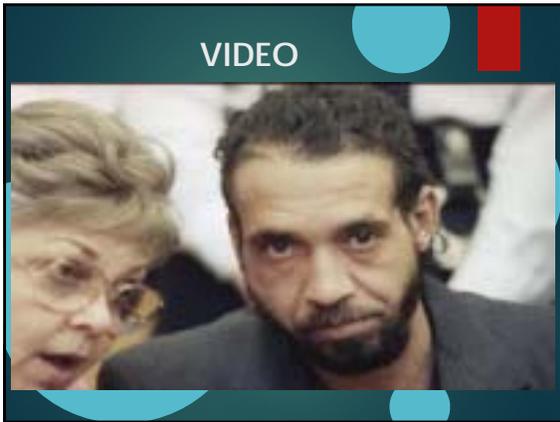
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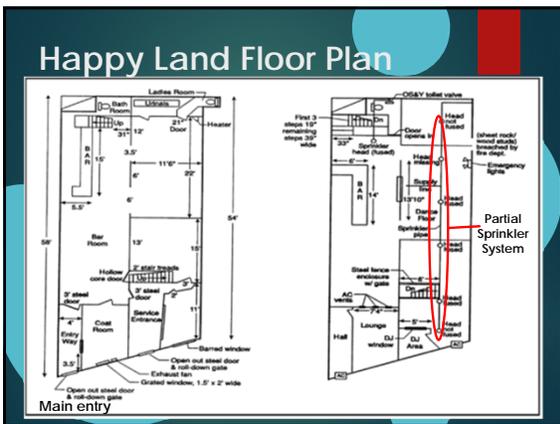
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- March 25, 1990 an early morning arson fire took the lives of 87 persons at a neighborhood club in Bronx, New York.
- Fire cause was ignition of gasoline that was poured at the base of the main stairway exit.

45



46



47

Contributing Factors

- Interior wall finish was 3/16-inch wood paneling.
- First floor entry and bar ceiling was low density fiberboard tiles.
- Remainder ceiling was gypsum board.
- Fiberboard tiles were installed on furring strips under the floor joists and the paneling was on furring strips over plaster.
- There was a partial sprinkler system on the second floor.
- No fire alarm.

48

This event...

- Increased awareness of "illegal" neighborhood" meeting places.
- Demonstrated that agencies must work together to gain code compliance.
- Demonstrated the need for "follow up" inspections.

49

The Station Night Club Fire

February 20, 2003



The front door early in the fire

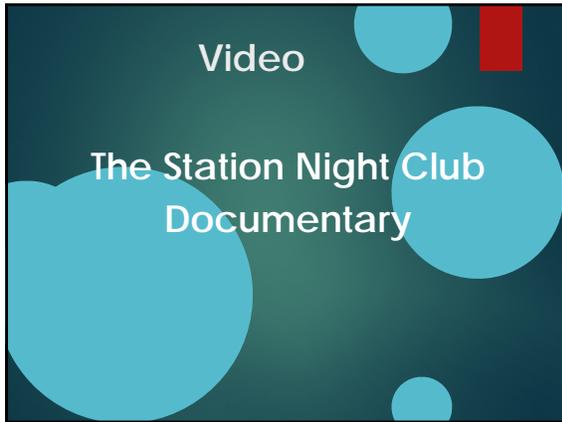
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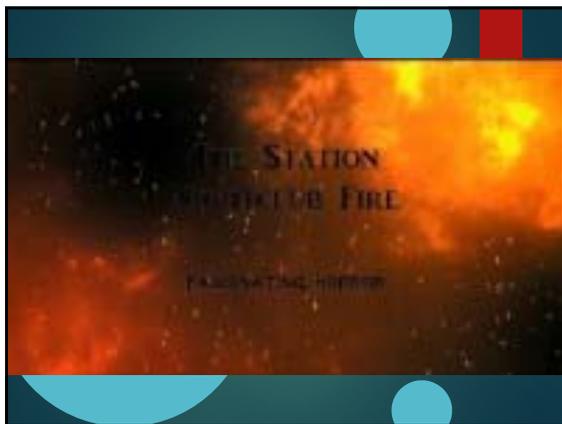
The Station Night Club Fire

- West Warwick, Rhode Island
 - Ninety-six people died.
- 187 people taken to local hospitals.
- 81 people were admitted to hospitals
- Pyrotechnics were used in live show.
- A story on night club safety was being taped by a CNN affiliate

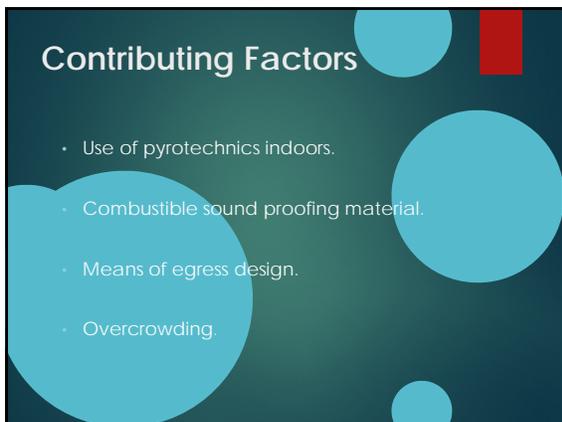
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52



53



54

This event...

- Caused significant review of Night Club requirements in building and fire codes.
- Automatic sprinklers now required in Nightclubs based on square footage and occupant load.

55

When the game is on how you get everyone's attention?

- Can the lights be turned on?
- Can the music off be turned off?
- How quickly can this happen?
- Is there a position where someone can see the entire room?
- Who's designated to take these actions?

56

As a Society have we learned from our Experiences?



57

Its Not Just Fires...

- The E2 Night Club - Chicago, Illinois
- February 17, 2003, 2 A.M.
- Nightclub stampede resulted in 21 deaths and 50 injuries when a security guard used pepper spray to break up a fight.



Occupants trying to evacuate the building.

58

VIDEO



59

What is an assembly?

- The use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.
- VCC Section 202

60

What is an Area of Public Assembly?

- Any location where 50 or more people gather.
- The gathering can be for many purposes.
- Areas of public assembly can be found in all types of buildings.
- Reference:
 - USBC, VSFPC, NFPA 101

61

VSFPC Requirements

62

Emergency Preparedness Requirements

Section 403

- Required Occupancy Load signs must be maintained.
- Fire and evacuation plan except religious use with OL of 2,000 and buildings with Assembly use and an atrium.
- Detailed seating plan.
- Announcements in theaters, motion picture theaters, and others not less than 10 minutes from start of each program.

63

Emergency Preparedness Requirements

- Occupant load count upon request.
- 403.12.1 - Trained Crowd Managers
 - Gatherings involving more than 500 occupants.
 - At least 2 Crowd Managers required with not less than 1 for every 250 occupants.
 - There are Exceptions...



64

What is a Crowd Manager

- One or more people that are assigned the responsibility of maintaining the safety of the occupants during a gathering.
- Responsible for implementing the evacuation plan in the event of an emergency.
- Provides a safe atmosphere for people to gather.

65

Crowd Manager Duties

Inspection of area responsible and...

- Identify and address any egress barriers.
- Identify and mitigate any fire hazards.
- Verify compliance with permit requirements.

66

Crowd Manager Duties

- Direct and assist occupants in event of evacuation.
- Assist emergency response personnel where requested.
- Other duties as directed.

67

Public Safety Requirements

403.12

- Fire watch personnel when deemed necessary by the Fire Code Official.
- The Fire Code Official is authorized to require a Public Safety Plan when needed for safety of occupants.

68

Pre event Inspections

- Adequate Number of Marked Exits
- Clear Exit Paths
- Doors Swinging Out (50 or more occupants) and equipped with Panic hardware, where required (100 or more occupants)
- Occupancy Load Posted
- Automatic Sprinkler and Fire Alarm Systems operational.
- Emergency Lighting operational.

69



70



71



72

During the Event

- Walk the area to confirm that the exit paths are staying clear.
- Assess Crowd Management staff are meeting expectations.
- Assure that the management staff has a safety culture and look for situations that could lead to challenges in the event of an emergency.

73

During the Event

- **Monitor the occupant load**
 - Have the occupants counted when entering.
 - Have the occupants counted when leaving.
- Do not allow the occupant load to be exceeded.



74

Responsibility

- You have a responsibility to provide a safe environment for the occupants.
- You have the responsibility to have fire code violations abated.
- You have an opportunity every day to make this occupancy safe.
- Your actions will make a difference.
- Anything worth doing is worth doing correctly.

75

Responsible Actions make a difference

- Three days prior to the Station Night Club fire a fire broke out in a club in Minneapolis.
- The fire was started by the band setting off pyrotechnics.
- Automatic sprinklers controlled the fire.
- An immediate and orderly evacuation of 120 patrons was conducted.
- The result? **NO INJURIES!**

76

Review

- What is the relationship between the Fire Code and Occupant Safety.
- What is an "Area of Public Assembly?"
- What is the role of a "Crowd Manager."
- Describe the steps that should be taken in preparation of holding an assembly event.

77

Do you want a media event?

Your Jurisdiction – Any Town, VA



78

Remember

- Code enforcement motto should be "Enforcement through Education"
- You have an opportunity everyday to make events a safer place for you, the tax payers, and visitors to your community.
- Remember the emergency event you prevent may save lifes and may be your own.

79

- Thanks for coming.
- Is a hot dog a sandwich?

80
