CATASTROHPIC MULTIPLE-DEATH FIRES IN THE UNITED STATES – 2004

Stephen G. Badger Fire Analysis and Research Division National Fire Protection Association

September 2005



Acknowledgments

NFPA wishes to thank the U.S. fire service for its contributions, without which this report would not be possible. The author would like to thanks his co-workers for their guidance in the completion of this report.

For more information about the National Fire Protection Association, visit www.nfpa.org or call 617-770-3000. To learn more about the One-Stop Data Shop go to www.nfpa.org/osds or call 617-984-7450.

Copies of this report are available from:

National Fire Protection Association One-Stop Data Shop 1 Batterymarch Park Quincy, MA 02169-7471 www.nfpa.org

e-mail: osds@nfpa.org phone: 617-984-7450

Copyright © 2005, National Fire Protection Association, Quincy, MA

In 2004, 32 catastrophic multiple-death fires killed 152 people (34 of them children under the age of six) compared to 2003 when 35 fires killed 307 people (including the 100 deaths at the Rhode Island nightclub fire). The 2004 experience was similar to 2002, when 160 people died in 32 catastrophic fires. Catastrophic multiple-death fires are fires that kill five or more people in a residential property or three or more in a nonresidential or nonstructural property.

Imagine reading a news story that says, "A family of five escaped an inferno that broke out in their home at 4 a.m. today." From the reporter's description of the event, we learn that the fire broke out when a candle left unattended on a kitchen table ignited nearby combustibles. A smoke alarm sounded, and the family escaped using various escape routes that they had practiced for years. When firefighters arrived, the family was waiting at a tree in the front yard and told firefighters that all family members were safely out of the house.

Instead, we are more familiar with this tragic tale: Instead of the family getting out, there is death, and we are reading about how a silent or missing smoke alarm results in a deadly fire. It takes just one element to change the whole story. Most of these large losses—or even the fires themselves—could have been prevented with a simple change in behavior.

The largest loss-of-life fire in 2004 occurred in a 24-unit apartment building, one of several buildings in an apartment complex. The building was three stories high and of protected wood-frame construction. It was not reported if there a smoke detection system was present, but it is known that there was no automatic suppression equipment. While most occupants slept, an incendiary fire was ignited in a stairwell at the north end of the building in the basement. The fire spread up to the third-floor and attic. All 10 victims, two under age six, were located on the third floor. Arriving firefighters faced a large amount of fire and smoke, and dozens of people evacuating, some jumping from upper-story windows.

In the United States, there were an estimated 1,550,500 fires in 2004: 410,500 in residential properties, 115,500 in nonresidential properties, and 1,024,500 in nonstructural properties. They killed 3,900 civilians. Catastrophic, multiple-death fires accounted for 0.002 percent of these fires and 3.9 percent of the deaths.

Where We Get Our Data

NFPA obtains its data by reviewing national and local news media, including fire service publications. A news clipping service reads all daily U.S. newspapers and notifies the NFPA Fire Analysis and Research Division of catastrophic fires. Once an fire has been identified, we request information from the local fire department or the agency having jurisdiction. NFPA's annual survey of U.S. fire experience and mailings to state fire marshals are additional data sources, although not principal ones. We also contact federal agencies that have participated in the investigation of such fires.

The diversity and redundancy of these sources enable us to collect the most complete data available on catastrophic fires in the United States. We understand that, in many cases, a department cannot release information due to ongoing litigation. And in some cases, departments have been unable to determine the information we request.

Catastrophic Residential Fires

In 2004, the most catastrophic multiple-death fires occurred in residential structures. There were 17 residential fires, 13 in single-family dwellings, four of which were manufactured homes; 1 in a 123-unit mote; 1 in the 24-unit apartment building, 1 in a 5-unit apartment building, and 1 in an apartment building with an unreported number of units.

Residential occupancies accounted for 53 percent of the catastrophic multiple-death fires in 2004. There were 96 deaths in these fires, up from 91 deaths in 2003. These deaths represent 63 percent of the total deaths in catastrophic multiple-death fires. Thirty children under the age of six died in these fires, a number comparable to that of 2003. Fourteen of the 17 catastrophic residential fires occurred between 11 p.m. and 7 a.m. (see Table 1).

One fire killed seven unattended children, all under the age of eight, in a five-unit apartment building. The building was two stories high and made of protected wood-frame construction. Smoke alarms were present, but they were not in the area of origin and did not sound. The reason for this was not reported.

The afternoon fire, which originated in a second-story bedroom, involved an open flame and spread to the attic. Upon hearing the children's screams, the mother of six of the children returned from a neighbor's house. She and the neighbors attempted rescues. Arriving firefighters

located and removed the victims. Extra firefighters were called to the scene, as most of the first-responding units were involved with life-support measures for the victims.

Four fires killed six people each. The first occurred in a split-level, 123-unit motel that was of fire-resistive construction, with five stories in the front and three stories in the rear. One victim was a child under the age of six. At the time of the fire, the motel was at full operation with 46 registered guests. Some minor remodeling was in progress, and new furnishings were being added. The motel had a complete-coverage combination smoke-and-heat detection system. Local alarms in the guest rooms were not hooked into the system, and there was no automatic suppression equipment. The incendiary fire broke out just inside an exit door in the ground-level foyer at the rear of the building, which was equal to the third level at the front. The fire spread through the foyer and down a corridor.

The building alarms activated and alerted occupants. A guest heard the alarms, saw the fire in the foyer, and unsuccessfully attempted to extinguish the fire. The guest then returned down the corridor beating on doors and screaming fire. When the elevator failed to work, the guest broke a large window at the opposite end of the corridor instead of using the stairs, which caused a 248-foot (75-meter) horizontal chimney effect. The arriving firefighters were faced with a fire spreading through the foyer, people who had jumped, and others who were ready to jump.

Firefighters knocked down the fire while the next-arriving company made several rescues over ground ladders from windows. Four victims were found almost at the end of the corridor, near the broken window. Two more victims were found in their rooms. All the victims were on the fire floor.

The second fire, of undetermined cause, occurred in a two-story, single-family home of unprotected wood-frame construction. The house had a smoke alarm, but it had no battery. The early-morning fire started in the first-floor living room, then broke through a large front window and spread to the porch and up to the second story. All six victims were on the second story.

The third fire broke out on the front porch of a one-story, single-family home of unprotected wood-frame construction with a brick veneer. The house had no smoke detection equipment. The fire, of undetermined origin, spread into the home through the front door and traveled to the attic. The six victims were trying to escape through the back door in an attached garage, but the door had security bars with a key lock and they did not make it outside. The

family was overcome as it looked for the key. Security bars with no release device on all windows hampered both escape and rescue attempts.

The fourth fire was set in a first-floor hallway of a two-story row house of unprotected ordinary construction. No information on smoke detection equipment or other details were reported.

Eleven fires killed five people each. Eight were in single-family homes, two occurred in two-family homes, and one occurred in an apartment building.

A fire in a one-story, single-family home of unprotected wood-frame construction resulted in the deaths of four children under the age of six. The house had no smoke alarms. A four-year-old woke during the night, turned on a gas stove, and went back to bed. Food that had been left on the stove ignited, and the fire spread throughout the house. Security bars prevented the victims from escaping.

A fire in a single-family manufactured home ignited when electric heaters overloaded the electrical system. Information on smoke detection equipment was not reported. The home was engulfed by the time the fire department.

In a one-story, single-family home of unprotected ordinary construction, gasoline was ignited in the living room, near the means of egress. The house had no smoke alarms, and security bars on the window impeded escape and hindered firefighters' rescue attempts. One victim was a child under the age of six.

Another fire broke out near an electric panel in the laundry room of a two-story, single-family farmhouse of unprotected wood-frame construction. No smoke alarms were present. Five members of the family were asleep on the second floor and two on the first floor. One person from each level escaped. Most of the windows in the house were open at the time, allowing a strong wind to spread the flame and smoke rapidly.

A fire of unknown origin broke out in the front living room of a one-story duplex of unprotected wood-frame construction. There were no smoke alarms, and the doors and windows all had security bars and gates. The front door gate was locked, forcing firefighters to cut their way in. Also hindering escape and rescue were plywood hurricane shutters.

A fire of undetermined origin broke out in the first-floor lounge of a two-story duplex of unprotected wood-frame construction. Information on smoke detection equipment could not be

determined because the house was destroyed. There was a delay in detection of this fire due to the hour and the home's isolated location in a residential cul-de-sac.

A fire of undetermined cause that broke out in the kitchen of a two-story single-family home of unprotected wood-frame construction spread throughout the house. There was a partial coverage of smoke alarms, but they did not operate. One was missing a battery, and one had a dead battery.

Few details were reported for the last four five-fatality fires, which accounted for the deaths of 10 children under age six. Three of them occurred in manufactured homes, and the fourth occurred in an apartment building with an unknown number of units.

Catastrophic Nonresidential Fires

Five catastrophic nonresidential structure fires killed 19 people in 2004. In comparison, 10 catastrophic nonresidential structure fires, including The Station nightclub fire, killed 163 people in 2003. In 2004, one fire each occurred in a manufacturing plant, an assisted-living facility, a board-and-care facility, an office building, and a natural gas well (see Table 2).

Two fires resulted in five deaths each. The first broke out in a two-story assisted-living facility of protected wood-frame construction. At the time of the fire, there were 16 residents and an unknown number of staff in the facility. A smoke detection system was present, and it operated and alerted occupants. There was no automatic suppression equipment. The fire broke out in a second-story bedroom when a lamp arced and ignited nearby combustibles. Arriving firefighters and police officer rescued several occupants, and the other occupants escaped on their own.

In the second incident, an explosion followed by a fire occurred in a two-story, chemical and plastics manufacturing plant of unprotected, noncombustible construction when an undetermined source ignited a leak in a vinyl chloride system. The plant had no smoke alarms. It did have an automatic wet-pipe sprinkler system, but its coverage and effectiveness is still under investigation.

Three more fires killed three people each. The first occurred at a gas well following an explosion, the cause of which has not yet been undetermined. Arriving firefighters located two of the victims and removed them, but they could not find the third victim. Since the scene was

unsafe, the firefighters pulled back, evacuated area residents, and awaited specialty teams. Once the fire was extinguished, the third victim was found.

The second fire broke out in a one- and two-story board-and-care facility of unprotected wood-frame construction. No other information was reported.

The third incident was an explosion in an office building in which four people were present. The building, was one story high and made of unprotected ordinary construction. It had no detection or suppression equipment. Investigators determined that natural gas leaking from a pipe outside the building worked its way into the structure, where it was ignited by an undetermined source. One person was injured in the explosion.

Catastrophic Nonstructural Fires

There were 10 catastrophic fires outside of structures, 5 in cars or trucks, 3 in aircraft, 1 in a camper trailer, and 1 in an open trench. A medical examiner's or coroner's office verified that the deaths in crashes with ensuing fires were due to fire, not impact. These catastrophic nonstructural fires killed 37 people, including four children under age six. This is fewer than 2003, when nine such fires killed 53 people.

Three nonstructural incidents killed five people each. The first was a single-car car fire, in which three of the victims under age six. No other information was reported.

The second fire occurred when an aircraft crashed in a wooded area past the end of the runway and came to rest in a ravine. An unknown source ignited a large amount of spilled fuel. By the time firefighters arrived, the aircraft was fully engulfed in smoke and flames. The National Transportation Safety Board (NTSB) report has not been released yet.

The third was an explosion followed by a fire. Workers were digging a trench to install new water pipe, when an excavator accidentally hit a gasoline pipeline. Welders working nearby ignited the ensuing high-pressure leak. Most of the five victims died in the trench.

One 2004 fire that killed four people occurred when an airplane practicing touch-and-go landings crashed into a hangar and several vehicles. A fire broke out and destroyed the plane, the vehicles, and the hangar. The NTSB has not yet released its accident report.

Another six fires last year killed three people each. Four occurred in highway vehicles involved in crashes, one involved an aircraft crash, and one was a camper trailer fire.

The first fire resulted when a motor home collided with a semi-tractor trailer. Spilled gasoline ignited, and the fire spread into the motor home, trapping the three occupants. The second also involved a two-vehicle collision. Gasoline from a ruptured fuel tank ignited, and the fire spread to one of the vehicles. Only one person was rescued from this fire, which firefighters used foam to extinguish.

In the third incident, a train broadsided a tanker truck that had not made it over a highway crossing as the train approached. The truck was carrying approximately 8,000 gallons (30,280 liters) of gasoline, which spilled and was ignited on impact. The driver of the tanker and two train operators were killed.

The fourth incident was a plane crash on a mountainside. As a post-crash fire broke out, two people escaped. They were able to pull one burn victim from the crash, but he died a short time later. The other two victims were trapped in the wreckage and died of burns.

No information was reported for the last two incidents, except that one involved a camper trailer at a camp ground and the other resulted from a two-vehicle collision on a highway.

Role of Smoke Alarms and Sprinklers

Information on detection equipment was only reported for 10 of the 17 residential fires. In 6 of the 10 properties, there was no automatic detection system present. Thirty-one people died in these structures, including two children under the age of six.

Four of the residential structures had smoke alarms. The motel had a complete coverage combination smoke and heat detection system that operated and alerted the guests. One home had a smoke alarm but its battery was missing, and another home had two smoke alarms, one with a dead battery and one missing a battery. The operation of the smoke alarm in the third home couldn't be determined.

In these three home fires, 18 people died, including 5 children under age six. None of the residential occupancies had a sprinkler system.

Information on detection equipment and sprinkler systems was reported in only four of the five nonresidential fires. Three properties had no smoke detection equipment, and one had a system with unreported coverage that operated and alerted the occupants. Another three had no sprinkler equipment, and one had a wet-pipe system, the operation and coverage of which was not reported.

Smoke alarms have been proven effective in reducing the risk of death in home fires. The most effective arrangement is to use interconnected, multiple-station smoke alarms supplied by hard-wired AC power with a battery backup. These should be located outside each sleeping area, on each level, and in each bedroom. Homeowners should routinely test smoke alarms according to manufacturers' instructions. NFPA recommends testing residential smoke alarms at least monthly. Batteries should also be replaced according to manufacturer's instructions but at least yearly.

Smoke alarms are only effective if occupants exit the building when they sound. Children should be familiar with the sound of a properly operating smoke alarm and follow a practiced escape plan that emphasizes two ways out with a designated meeting place.

Exit drills in the home are part of many school curricula. Practicing the plan helps families determine whether children and others waken readily to the sound of a smoke alarm. That information, along with help for family members who require it, can be factored into the plan. Practicing fire prevention principles could have prevented many of the fires.

Security Bars

In 2004, security bars on windows and doors hindered or prevented occupants' escape in four residential structure fires, none of which had smoke detection equipment. These fires resulted in 21 deaths, or almost one-fourth of the deaths in residential properties. In at least three buildings, the bars were non-releasing or did not comply with the codes. In one case, there were also plywood hurricane shutters and metal gates on the doors.

Many of the security measures being used to keep criminals out also trap residents in during emergencies, and they worked to keep firefighters from getting in to attempt rescues.

NFPA recommends that all security bars be installed with quick-release devices and that family members know where and how to use them.

Stephen G. Badger, fire data assistant in NFPA's Fire Analysis and Research Division, is retired from the Quincy, Massachusetts, Fire Department.

Table 1. Catastrophic Residential Fires in the United States in 2004

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type, Construction Type, Number of Stories	Smoke Detectors and other Fire Protection Devices	Fire Origin and Path	Contributing Factors and Victim Locations
Ohio September 2:48 a.m. 10 (two under age six)	Three-story, 24-unit apartment building of protected wood-frame construction.	No information on automatic detection was reported. There was no automatic suppression equipment installed.	A fire was set in a lower-level stairwell and spread vertically to the third story and attic.	All of the victims were found on the third floor.
Ohio October 2:38 p.m. 7 (four under age six)	Two-story, 5-unit apartment building of protected wood-frame construction.	There were smoke alarms in the apartment but not in the room of origin, and none operated. The reason alarms did not operate was not reported.	An open flame ignited the fire in a second-story bedroom, which then spread to the attic.	The seven victims were all under the age of eight and were unattended. An infant was in one bedroom, the other children were in a second bedroom.
South Carolina January, 4:24 a.m. 6 (one under age six)	Split-level, 123-unit motel of fire-resistive construction, with five stories in the front and three stories in the rear.	There was a complete-coverage heat and smoke alarm system. Guestrooms had local alarms that were not connected to the system. Alarms activated and alerted the occupants. There was no automatic suppression equipment.	A fire was set in the foyer of the rear entrance, which was at ground level at the back of the building and on the third level at the front of the building. The fire extended down a corridor, aided by the chimney effect created when a guest broke a window on the opposite end of the corridor.	There were 46 registered guests. Four victims were found in the corridor near the broken window, and two other victims were still in their rooms, all on the fire floor.

Table 1. Catastrophic Residential Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type, Construction Type, Number of Stories	Smoke Detectors and other Fire Protection Devices	Fire Origin and Path	Contributing Factors and Victim Locations
New York August 5 a.m. 6 (one under age six)	Two-story, single-family dwelling of unprotected wood-frame construction.	There was a smoke alarm, but the battery had been removed.	The fire began under a large window in the first-floor living room. The window failed and the fire spread to the front porch and upward. The cause is undetermined.	Smoke and intense heat trapped the six victims on the second floor.
Oklahoma September 9:39 p.m. 6	One-story, single-family dwelling of unprotected wood-frame construction, with brick veneer.	None.	The fire originated on the front porch and spread through the front door and entry way to the attic. The cause is undetermined.	Doors and windows with security bars with no quick-release mechanism hindered escape and firefighter access. The six victims were found in the attached garage where they were looking for the key to a barred back door.
Pennsylvania October 4:57 a.m. 6 (one under age six)	Two-story, single-family row house of unprotected ordinary construction.	Not reported.	A fire was set in the first-story hallway. No other details were provided.	None reported.
Michigan January 4:29 a.m. 5 (four under age six)	One-story, single-family dwelling of unprotected wood-frame construction.	None.	A four-year-old turned on a gas stove and went back to bed. Cooking materials ignited and the fire spread throughout the house.	Due to the early hour, family members were asleep, and the child was unsupervised. Security bars prevented the family's escape. All the victims were found in bedrooms.

 Table 1. Catastrophic Residential Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type, Construction Type, Number of Stories	Smoke Detectors and other Fire Protection Devices	Fire Origin and Path	Contributing Factors and Victim Locations
Indiana February 5:46 a.m. 5 (three under age six)	One-story, single-family manufactured home.	Not reported.	Electric heaters overloaded the electrical system. The house was fully engulfed when firefighters arrived.	None reported.
Kentucky February 6:40 a.m. 5 (three under age six)	One-story, single-family manufactured home.	No information reported.	No information reported.	No information reported.
Florida February 12:48 a.m. 5 (one under age six)	One-story, single-family dwelling of unprotected ordinary construction.	None.	Gasoline was ignited in the living area near the means of egress.	Non-code-compliant, non-releasing wrought iron security bars hampered firefighters' efforts.
New York April 5:30 a.m. 5 (one under age six)	Three-story apartment building of unprotected ordinary construction, unknown number of units.	Not reported.	Not reported.	Victims were found in a top-floor apartment.
Alabama May 1:10 a.m. 5 (two under age six)	One-story, single-family manufactured home.	None.	No information reported.	No information reported.

 Table 1. Catastrophic Residential Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type, Construction Type, Number of Stories	Smoke Detectors and other Fire Protection Devices	Fire Origin and Path	Contributing Factors and Victim Locations
Virginia May 3:54 a.m. 5 (one under age six)	Two-story, single-family dwelling of unprotected wood-frame construction.	None.	An unspecified electrical malfunction in the area of the electrical panel resulted in a fire in the first-floor laundry room.	Five people were asleep on the second floor, and two were on the first floor. One from each floor escaped. Most windows were open, allowing a strong wind to spread smoke and flame.
Florida September 1:38 a.m. 5	One-story, two-family dwelling of unprotected wood-frame construction.	None.	The fire originated in the front living room. The cause is undetermined.	The doors and windows all had security bars. The front and rear doors had steel gates that firefighters had to cut through to gain entry. Hurricane shutters covered windows. All the victims were found in the bedrooms.
South Carolina September 12:53 p.m. 5 (four under age six)	One-story, single-family manufactured home.	No information reported.	No information reported.	No information reported.
Massachusetts October 1:33 a.m. 5 (two under age six)	Two-story, two-family dwelling of unprotected wood-frame construction.	Undetermined due to destruction.	A fire of undetermined cause started in the first-story lounge.	The family was asleep. Given the home's isolated location on a cul de sac, there was no traffic or passersby who might have discovered the fire. Four of the victims were found on the second floor. The location of the fifth victim was not reported.

12

NFPA, Fire Analysis and Research, Quincy, MA

Catastrophic Multiple-Death Fires 2004, 9/05

Table 1. Catastrophic Residential Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type, Construction Type, Number of Stories	Smoke Detectors and other Fire Protection Devices	Fire Origin and Path	Contributing Factors and Victim Locations
Kansas October 5:00 a.m. 5	Two-story, single-family dwelling of unprotected wood-frame construction.	Partial-coverage smoke alarms were present, but they did not operate. One was missing a battery, and the battery in the other was dead.	The fire, of undetermined cause, began in the first-floor kitchen and spread throughout the structure.	The victims were found in bedrooms on the second floor.

Table 2. Catastrophic Nonresidential Fires in the United States in 2004

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type & Use, Number of Stories, Construction Type, Operating Status	Detection Systems	Suppression Systems	Fire Origin & Path	Contributing Factors
Tennessee January 9:07 p.m. 5	Two-story assisted- living facility of protected wood-frame construction. There were 16 residents and an unreported number of staff in the facility.	Operating smoke alarms alerted the occupants, but the type and coverage were not reported.	None.	The fire broke out in a second- story bedroom when a lamp arced and ignited nearby combustibles. The fire spread through the room into the attic.	The staff, firefighters, and police officers rescued some of the 11 occupants. Other occupants managed to escape on their own.
Illinois April 10:45 p.m. 5	Two-story chemical and plastics manufacturing plant of unprotected noncombustible construction, full operation.	None.	An automatic wet-pipe sprinkler system was present. Its coverage was not reported, and the operation of the system is still under investigation.	An undetermined source ignited a vinyl chloride leak.	Not reported.

Table 2. Catastrophic Nonresidential Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Occupancy Type & Use, Number of Stories, Construction Type, Operating Status	Detection Systems	Suppression Systems	Fire Origin & Path	Contributing Factors
Kentucky August 2:03 p.m. 3	Natural gas well; three workers were onsite to repair a pump.	None.	None.	An unknown source ignited gas that had been released from the well.	Two victims were found after firefighters arrived. The third was found after the fire was extinguished.
Pennsylvania August 2:20 a.m. 3	One- and two-story board-and-care facility of unprotected wood-frame construction with 40 patients and an unreported number of staff members.	No information reported.	No information reported.	No information reported.	No information reported.
Minnesota December 9:47 a.m. 3	One-story, bank office property of unprotected ordinary construction, four people were in the building.	None.	None.	Natural gas from piping underground outside seeped into the building. The explosion resulted when an unknown source ignited the accumulated gas.	The bodies of the three victims were recovered from the wreckage. A fourth person in the building survived.

Table 3. Catastrophic Non-Structural Fires in the United States in 2004

Location, Date, Time of Alarm, Number of Deaths	Setting	Climate Condition	Fire Origin & Path	Factors Hindering Occupant Escape
Washington July 1:00 a.m. 5 (three under age six)	Automobile fire.	No information reported.	No information reported.	No information reported.
Missouri August 9:51 a.m. 5 (one under age six)	A plane crashed in a wooded area past the end of the runway, landing in a ravine.	Not reported.	An unknown source ignited fuel spilled in the crash. The aircraft was engulfed in seconds.	None reported.
California November 1:30 p. m. 5	Trench for a water supply pipeline installation.	Not reported.	An excavator digging a trench for new pipe punctured a gasoline pipeline. Sparks from a welder's torch nearby ignited the high- pressure spray, causing an explosion.	The explosion was followed by a fire that engulfed the workers and trapped them in the trench.
Pennsylvania July 4:22 p.m. 4	Aircraft crash at an airport.	Overcast.	An aircraft practicing touch-and-go landings crashed into a one-story hangar and several vehicles. Upon impact, the fuel ignited. The NTSB report has not been released yet.	None reported.

Table 3. Catastrophic Non-Structural Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Setting	Climate Condition	Fire Origin & Path	Factors Hindering Occupant Escape
Florida February 12:58 p.m.	Semi-tractor trailer truck struck a motor home on a highway.	Not reported.	The collision ignited gasoline from the motor home, and fire spread to its interior.	The three victims were trapped in the motor home.
Illinois February 2:24 a.m.	Two-vehicle collision on a paved roadway.	Not reported.	Gasoline from a ruptured fuel tank ignited after two passenger cars collided.	None reported.
Louisiana June 10:05 a.m.	Gasoline tanker truck at grade level at a railroad crossing.	Not reported.	A tanker truck carrying approximately 8,000 gallons (3,283 liters) of gasoline was struck broadside by a railroad locomotive. Fuel was released and ignited.	None reported. The victims were the truck driver and two operators on the train.
Illinois August 2:00 p.m.	Two-car collision on interstate highway.	No information reported.	No information reported.	No information reported.

Table 3. Catastrophic Non-Structural Fires in the United States in 2004 (Continued)

Location, Date, Time of Alarm, Number of Deaths	Setting	Climate Condition	Fire Origin & Path	Factors Hindering Occupant Escape
Montana September 3:30 p.m.	An aircraft crash on mountainside.	Light rain.	An aircraft crashed in mountainous terrain, and a post-crash fire developed.	Two victims trapped in the wreckage died of burns. Two survivors pulled a third person, also burned, from the aircraft, but he died a short time later.
North Carolina November 3:00 a.m.	Camper trailer at a campground.	No information reported.	No information reported.	No information reported.