

Home Away from Home

How Safe is Your Hotel Room?

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*Figure 1. Recent hotel fire. One fatality, one serious injury.
Lightweight construction, limited egress and faulty alarms
lead to rapid fire spread and little warning to occupants.*

Like many people, I often travel for work and pleasure. Over many years, I've been to from Miami Beach to the North Shore of Oahu. I've traveled Europe from the Ireland to the Czech Republic. I have been to Canada, Mexico, Honduras, and a few countries in the Middle East as well. On most of those trips, I stayed in a hotel of some sort, whether a traditional guesthouse, a hotel chain, or a fancy island resort.

It's has only been in since I became involved in fire investigation, however, that I have started paying particular attention to the safety of my accommodations. Whether it was learning about ignition sources, heat release rates of room furnishings, or reading case studies, I became aware of the potential dangers of sleeping in unfamiliar spaces.

I now automatically look for things that were previously invisible to me. What I see scares me. Far more often than I would like, I find dangerous conditions in my hotel room. On my last vacation trip, I stayed in four hotels. In two I found safety violations so egregious that I asked to see manager and demanded that the condition be corrected before my wife and I went to bed that night.

It would be easy to think that the problem only occurs in small mom and pop joints trying to get by, in backward small town with little code enforcement, or third world countries, but that is simply not the case at all. While problems certainly occur in the previous categories, I have also encounter problems in fancy establishments with lots of stars behind their names. Dangers have lurked in large national franchises with names everyone recognizes. In towns big and small, from single location operators to big chains with international offerings.

So what, you may ask, was waiting for me in my hotel room? There are a number of problems I have seen with some frequency. Here's what I have found most often.

Lightweight construction. While this is not a cause of fires, it does have a major impact on your chances of survival should a fire occur. Gone are the days when every hotel was made of block and concrete. I have seen a good many hotels spring up lately constructed with light wood timber framing (2 x something lumber or composite beams, etc.). What passes for a firebreak is usually an extra layer gypsum board on a wall or ceiling. The trouble with lightweight construction is that it does not hold up to a fire like masonry or heavy timbers. Even when properly equipped with a fire sprinkler system, fire spread, and the burning and collapse of the structure is almost inevitable if fire is more than the sprinklers can handle.

Flammable furnishings. Just about every accommodation – from a low priced flop house to the most modern and up to date boutique hotel – are filled with polyurethane filled chairs, mattresses, pillows and the like. From a fire safety standpoint this is not good, but it can be worse still.

Hotel safety is regulated under the Code of Federal Regulations. Some of these regulations require minimum standards for flame retardant outer coverings and flammability of stuffing materials for mattresses and padded furniture. It is not uncommon to find an old, outdated mattresses, pillows or chairs that are not up to the current standards. Worse, there are many small mattress remanufacturers, some of whom may cut corners or just be ignorant of the material requirements to make a safe product. This is difficult to check for, but not impossible. Finding out will require checking the tag on the item in question. It also requires some knowledge of current regulations.

Loose connections. The older a hotel, the longer the electrical receptacle have been in use. Like all things, receptacles can wear out and must be replaced. The buss bars are made of brass and over time can stretch, harden, and even become brittle and break. Many times I have plugged a computer or cell phone charger into a loose outlet, only to have the plug fall out under its own weight. Worse, some have stayed but the connection was so poor that the power to my device was intermittent. Why is that bad? One of the more common causes of electrical fires is high resistance connections. Poor contact causes resistance, resistance creates heat, and heat ignites fires. And it's not just limited to the wall receptacles. As more amenities are added to older rooms, relocatable power taps (RPT's) are commonly used. They have the same issues as receptacles, plus a few of their own. When you do see an RPT, it is often under a piece of furniture (i.e. major fuel package).

Non-Working Smoke Alarms. The smoke alarm is the warning to get out before things get worse than they already are. When I arrive in my room I spend a minute looking at the smoke alarm. I should see a small light indicating that the unit is actually powered up. In the case of a hardwired smoke alarm, there is usually a steady light that is on all of the time. If the smoke alarm is battery powered only, there is usually a light that blinks at least once per minute. If I don't see a light, I look a little longer. If I still don't see a light, I get concerned and take a closer look. The first thing I look at is the color. New smoke alarms are generally white or off white. If the smoke alarm is an uneven yellow color I know that it is past its prime, and likely past its 10 year service life. This can be confirmed by looking at the date code stamped on the back. When doing so, I have often found the alarm disconnected, and the backup battery dead or missing. These are all very serious code violations that could, and have, cost someone their life.

(I don't recommend removing the smoke alarm, as you might accidentally set off the alarm, clear the building and summon the fire department! If in doubt, call for maintenance.)



Figure 2. Smoke alarm at a small hotel in Georgia. The date code indicates the unit was at least 9 years out of date (made before 1999), the battery was removed and the power disconnected. The alarm was completely inoperable.

Lack of Fire Suppression Systems. A fire suppression system, generally a sprinkler system, is the last line of defense if all else goes down the tubes. While not always required by code, I feel much better when I see the rooms, corridors and common areas are sprinklered. I'll generally take at least one trip down the emergency stairs and check the standpipes, pressure gages and inspection tags to see that the system is being maintained.

Egress issues. I have seen inward opening exit doors (room doors should open inward), chained and locked exit doors (a code violation and prima facia evidence of criminal negligence), escape

paths used as storage rooms, self-locking stairwell doors, improperly marked exits, and nonworking emergency lights more times than I can count. I often find issues that would make it difficult to exit a hotel under the best of conditions. Imagine an emergency, in the middle of the night, when everyone is in a panic, the power is failing, and the hallways are filling with smoke. It is nothing less than a deathtrap.

Untrained Staff. The second worst problem I have found in any hotel, and the secondary cause of the other issues previously addressed is poorly trained or untrained hotel staff. When I speak to a staff member about a safety issue, I usually get the same look as when I try to explain fire science to my dog. It's usually not the fault of the staff member. Many hotel staff are overtasked with too many jobs and little training for most of them. The maintenance person responsible for maintaining the fire safety equipment also has to change the lights, fix the ice make, mow the lawn, etc.

The Management. In hotels, as in most businesses, the owner or manager is responsible for making a profit. No profit = no continuity of business. Now, I do not believe that management decisions at hotels are made strictly on a "cost vs. risk" basis. I do believe, however, that a knowledge vacuum exists where the decision makers don't have all the necessary information as to codes, standards, basic safety education or even what is going on at their own facilities. If nothing seems amiss, there is no need to correct the problem, right?

Hotels by nature run on a thin profit margin. Management often tries to cut costs by limiting their spending on labor, training and deferring maintenance. The general result is a staff that begins as less than fully trained and stays that way. Things don't get fixed or replaced as soon as they should. It is not the original intention, but it is the end result. A poorly trained staff does not know how to recognize safety problems or how to correct them. Isolated problems take hold and become endemic. Poor safety becomes the norm.

It is the duo of ignorance and complacency is the worst problem in hotel safety.

So, what's the bottom line? Are we better off sleeping in our rental cars than checking into a hotel? Of course not. On the other hand, we cannot completely abdicate our safety into the hands of others. We must remain alert and check for safety issues as soon as we check into our rooms.

So Good Night, Sleep Tight, and Check for the Smoke Alarm Light!