

Check Lists 2.0

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Electronic versions of the tried-and-true checklist make the tool more effective than ever

What do airplane pilots and commercial kitchen managers have in common? They use checklists for safety and quality control.

In a commercial kitchen, checklists may help prevent fires. Restaurants have all the ingredients for a fire to get out of control, and they are common within the industry. According to 2006-2010 data tabulated by the National Fire Protection Association (NFPA), nearly 8,000 eating and drinking establishments report a fire each year. The combination of open flames; very hot equipment; a variety of electrical connections; and the use of cooking oils, cleaning chemicals and paper products makes the restaurant industry highly susceptible to fires. The National Restaurant Association reports that fires cause an annual average of \$246 million in direct property damage to the industry.

The Power of the List

Both private and commercial pilots use pre-flight checklists to help ensure safety—their own and their passengers. Even the grizzled old pro who has been flying for 40 years uses checklists. Checklists provide structured rigor to the process; they accumulate knowledge and boil it down to essentials.

Due to the high fire risk, commercial kitchens can be dangerous to staff and guests if they are not rigorously inspected and maintained for appropriate storage and cooking temperatures, cleanliness and fire prevention. While a kitchen mishap may not be as spectacular as a flight mishap, the well-being of workers and patrons and the restaurant's reputation are quite serious. A fire can devastate a restaurant, leading to lost revenue and even permanent closure.

The best way to prevent fires and minimize damage if one occurs is to develop a detailed checklist. Many books explore the best ways to transfer and manage knowledge in business and organizational settings. But the humble checklist is a tried-and-true form of knowledge management that continues to make sense in our world. Checklists evolve from thoughtful reflection and from prior failure to anticipate. It is an excellent way to pass experiential knowledge from manager to staff.

Restaurant staffing typically has high turnover, which makes checklists a critical tool for knowledge transfer. Best practices in quality management demand repeatable processes, and the checklist can help convey these processes. Additionally, continuous process improvement demands that checklists be refined from lessons learned.

The Benefits of Electronic Checklists

While checklists are still an excellent way to transfer knowledge, they have evolved to an electronic format, which makes them even more effective. The paper checklist can create some real challenges for restaurant chains. Let's say you are the franchise operator of 15 restaurant locations. A mishap occurs at one of your establishments. An after-action review concludes that three more checklist items might prevent such a mishap from recurring. A manager at headquarters revises the kitchen-opening checklist and snail mails, faxes or emails it to all 15 stores. How can the manager ensure that all the restaurants update the old checklist? How does he or she ensure compliance with the new procedure?

Let's say headquarters has developed 25 checklists used for various jobs and processes at each of the 15 locations. These checklists are revised periodically. There are now 375 opportunities for version control errors. Is this risk level tolerable? What if your company has 30 stores and 30 unique checklists? There are now 900 opportunities for version omissions. Is this risk level tolerable? As you can see, the risk of errors grows exponentially with organization size and frequency of change. This is why electronic checklists are becoming more popular.

There are many ways to mitigate the risk of checklist and document version control issues. Reference the table above to view the relative risk of some common approaches.

Compliance and Accountability

Having the right checklist available to the right people at the right time addresses part of the problem. Ensuring those checklists are actually getting used speaks to compliance and accountability. Some typical approaches include:

- Paper documents with handwritten check boxes, date/time and initials. However, what happens to the document after it is completed? Trashed? Saved in a file folder? Scanned? Transcribed into electronic record?
- Dry erase paper. The restaurant can reuse the same checklist, initial when completed and erase for next use. No waste, but also no accountability.
- Electronic checklists. Offers built-in accountability for who did what and when they did it. Enforces compliance with audit trail for internal and external compliance audit.

It is clear from the approaches described for reducing version control risk— and for compliance, audit-ability and accountability—that electronic checklists win, hands down. When it comes to management control over geographically dispersed locations, electronic checklists provide immediacy, reduce paper waste and enable more efficient quality processes. Innovative facility and asset management teams at multi-location restaurant chains will benefit by adopting electronic checklists as standard operating procedure as part of their fire safety protocol.

Minimizing Fire Risk

Beyond the electronic checklist, the National Restaurant Association has outlined some fire safety 101 tips for preventing and minimizing the damage from kitchen fires. Here are their findings:

Schedule preventive maintenance, and install automatic fire-suppression systems in the kitchen.

Keep portable fire extinguishers on hand as backup.

Schedule routine maintenance on electrical equipment.

Inspect exhaust system monthly for grease buildup.

Train staff to use the fire extinguisher.

Clean up grease.

Avoid throwing water on a grease fire.

Make sure ashes are removed from wood- and charcoal-burning ovens.

Confirm cigarettes are out before dumping them in a receptacle.

Create proper storage for flammable liquids.

Keep the space tidy.

Use chemical solutions properly.

Have an emergency plan.

Be prepared to power down.

Have an evacuation plan.

A checklist is key to reducing fires in the kitchen. Identifying the proper software to support electronic checklists can reduce this risk even further. Several software platforms exist that offer this functionality, as well as manage the scheduling of routine and preventive maintenance. Doing a little research and implementing a thorough tracking system will lead to a safer, less flammable kitchen environment.

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