

ISSUE

26

SPRING 2017

# Lodging Engineer

## 1st Person



### Featured In This Issue

**Easy Tips to Help Reduce Some of Summer's Most Aggravating Pests**

**Soundproofing Windows**

**Common Water System Problems in Hotels and Best Repair Options**

**Improve the Efficiency of Maintenance Operations**

**Interview with Glenn Hasek  
of Green Lodging News**





# Lodging Engineer

LODGING ENGINEER™ reports about people, events, technology, public policy, practices, study and applications relating to hotel and motel engineering, maintenance, human communication and interaction in online environments.

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## >>INSIDE>>SPRING/2017

The good health of your hotel's plumbing system is fundamental to its efficiency and longevity. The key to minimizing system failures and their cost lies in understanding common problems found among the many subsystems such as; HVAC, Fire Sprinkler, and Irrigation and then how you deal with that information.

# 19

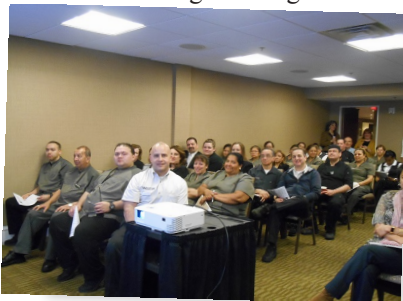
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#### 1st Person Interview

Editor and Publisher of Green Lodging News, Glenn Hasek, discusses his point of view on a variety of environmental topics. The latest 'Green Lodging Trends Report Survey' has been launched with new opportunities to participate.

### Page 15 A Hotelier's Guide to Summer Pests

With peak travel season right around the corner, concerns from the Zika virus still remain while a warm winter may bring increased pest activity. Orkin's new manager of technical services, Chelle Hartzler, provides hoteliers with several easy tips to keep unwanted pests away and out of sight from guests.



### 24 Success in the classroom leads to success in the field

Manny Mercado discusses why it is important

to refresh topics through training classes.

Topics covered; fire evacuation procedures, how to react and what you need to know and do, lock-out tag-out, basics of how to use fire extinguishers, and blood borne pathogens.



# 10

### Damaging Social Media Reviews and Lost Revenue Inspire Hotels to Solve 'Sleepless' Night Syndrome

Online trip reviews are playing an increasing role in how guests are selecting their stays. If your guests are complaining that loud street noise is keeping them up, soundproofing guestroom windows provides a solution without impacting your property's facade.



### 28 There doesn't have to be an app for that...

One thing we all have in our buildings is mechanical rooms; spaces that fall under everyone's responsibility but inevitably end up being maintained by no one. It seems it is always easier to assume the next guy will clean up the mess. To combat this, consider assigning ownership of each room to a member of your team.



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### Kitchen Preventive Maintenance

You never want to have your kitchen shut down for reasons that are within your control. Taking the time to inspect your kitchen's equipment and log critical information from temperature readings to inspecting door seals is a good first step in establishing an effective preventive maintenance plan.

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**1st Person Interview With**

# Glen Hasek of Green Lodging News

*Hi Glenn, I'd like to first thank you for giving us the opportunity to interview you and pick your brain about sustainable hotel and lodging trends. I read that you got your foot in the door by joining Hotel & Motel Management Magazine in 1989. Did you attend college for journalism or hospitality, and how exactly did you land in a career that is a marriage of these two industries?*

I attended what's now called Bluffton University and I majored in Communications there. That was way back in 1984. And I never even thought about hospitality while attending college. I also attended graduate school at Ohio University for just one year and again, during that time, I never even thought about hospitality as a career. It was back in late 1988, early 1989, I was looking for a job in the Cleveland area and the area happened to have a publishing company called Advanced Star Communications that published Hotel & Motel Management Magazine. They signed me on

as a freelancer and soon I was an assistant editor, and I worked my way up to a managing editor. That's where I left off, I went to another publication, I came back in 2010, I was there for 11 months and then got laid off. In 2005 I hatched the idea of Green Lodging News, because I saw other green articles and there was no one was doing it in hospitality. So, after a year of doing the groundwork and making the site, it launched in July 2006 as a website and email newsletter.

*What did you learn while with Hotel & Motel Management Magazine from 1989 through 2001?* It prepared me for Green Lodging News and it allowed me to develop a significant amount of experience reporting about news and trends in hospitality, one of which was sustainability, even though it wasn't called sustainability at the time. In 1991, I had a column called Eco-Views, so I was one of the first, if not the

first, in the hotel industry to write about green issues on a consistent basis.

*What does your website cover that other industry publications and news sites do not?*

I would say my publication is the only one in the lodging industry that covers sustainability and green news products and technology on a daily basis.

*Do you have any exciting plans for Green Lodging News in the future that you'd like to share?*

Right now, the biggest news I have to share is in last November, I launched a new version of Green Lodging News, a new website, after previously having the website under a different look for 10 years. And then last year, in 2016, in partnership with Greenview, Green Lodging News launched the Green Lodging Survey, which is now officially known as the Green Lodging Trends Report. So this year will be year two of that report and survey, with the hope and aim of growing that report and participation in it.

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*Your website says it gets around 28,000 to 32,000 unique visitors each month. Who exactly is your audience? Could you share some specifics about who visits your site?*

Last month [February] I actually had 38,900. I target hotel owners, general managers, engineers, directors of housekeeping, directors of sustainability, facilities managers, innkeepers and others who have an interest in running greener, more efficient lodging operations.

*What are the most popular news and feature categories or pages on your website?*

I know my product and service directory is the most visited page on my website, next to my home page. Also, very popular are the personnel profile articles that I run on my website that focus in on an individual at the company level or property level who is in charge of sustainability.

*Do you know why people really enjoy reading the personnel profile articles?*

If I were to guess, people like reading about other people. People who might be in their same position or maybe they can learn something from that person that they can apply in their own business. They're looking

for leadership and I try to write about leaders in this particular space.



*How do you pick topics and stories for your website?*

Part of it is based on my own knowledge of the industry. I draw from that. Other leads come to me through email or press releases or from suppliers or consultants. Other ideas I get from conventions or trade shows I attend.

*What does sustainability mean to you and what does sustainability mean to the hotel and lodging industry?*

Sustainability is often described as people, planet, profit. So, it's a way of doing business that lifts up people and considers their health and wellbeing and also considers the health and wellbeing of the planet. It is also done with profitability still being important, because let's face it, successful businesses hire more people, they provide livelihood for people. Going green is going to result in making green - making more money. Green lodging equals smart lodging.

*What percent of hotels do you think agree with your last statement?*

I would say the majority of hotel owners and operators in the U.S. are very much aware of the value of implementing green products and practices in their daily operations.

*When did you start to notice a shift toward increased focus on sustainability for commercial buildings?*

I would say it's within the last 10 years that there's been a strong trend toward greener buildings and greener operations.

*When did you start to notice a shift toward increased focus on sustainability for hotels?*

It's very much in line with the overall national trend, within the last 10 years.

*What role do hotel engineers play in a hotel's sustainability?*



They play a significant role, a huge role in the direction that a hotel is going to take through their operations-related choices, their influence on purchasing products and technologies that impact the operations of the hotel. This is true whether you're talking about energy-efficiency, water- efficiency, or air quality. It's their responsibility to put in the water-efficient toilet, the energy-efficient heating system to make sure everything is running the way it was intended to run without any leaks or inefficiencies.

*Why do hotels decide to "go green" in the first place? Or what are the top 3 reasons, in your opinion?*

Number one, it's smart business. When you implement green products and technologies in your property, the property is going to be cost-efficient, energy- efficient, water- efficient, and waste- efficient. So, operationally, it just makes sense, it's good smart business. Second, from a financial perspective, you're going to be a more profitable operation and you may also increase the overall value of the building, and it's valued to a potential buyer. You also can become a role model in the community, because sustainability is not just about how you run the guts of the building, but it's about what role you also play in the community, whether it's supporting charitable organizations, employing people, or setting an example of sustainability. So, it's kind of going back to the people, planet, profit business model. It's smart business. Engineers are all about proper preventative maintenance, if you properly maintain the equipment and fixtures in your hotel that impact resource consumption, you're going to extend the life of the equipment which will reduce cost in the long term and allow you to run a more efficient operation. So if you haven't gotten it by now, sustainability is all about efficiency.

few years. There are some initiatives that have already been established or worked on. Such as how to green up your operations and become a more profitable operation and at the same time positively impact the guest experience or, at least, not negatively impact the guest experience. That's an on-going challenge for hotel owners. Think about the shower, some hotel owners and operations are reluctant to implement water-efficient shower heads because they're worried the guest experience would be different or negative.

*What are new sustainable trends for the hotel and lodging industry from 2016 or 2017?*

There are constant improvements in technologies as they relate to any type of equipment in a hotel, whether it's the hotel kitchen, the heating and cooling of water, the lighting of the building - every area of operations is seeing improvements in efficiency. There are trends outside the industry that are driving sustainability, as well. It could be regulations on certain localities that require that your food waste be composted. I was just talking to a chef in New York today who was talking about that. So, if you're a hotel of a certain size in New York, you have to compost your food waste. It could happen on-site or it could go through a third-party vendor. Local, state and national legislation in regards to energy waste and water, in addition to developments in the private sector and on the supplier-side, all these things are trends that engineers need to be aware of. You have to think about government, what the private sector is driving or innovating, and you also need to think about what your own hotel company is mandating.

I frequently try to put himself in the shoes of an engineer and write about topics that are relevant to that

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***Some hotel owners and operations are reluctant to implement water-efficient shower heads because they're worried the guest experience would be different or negative.***

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*What are the major current sustainability issues, concerns and challenges facing the hotel and lodging industry, as you see it?*

I would say one is measurement – how do you measure your carbon impact and water impact as a hotel? That's one issue the industry has been tackling the last

person. Ideas that they can run with or approach ownership about. I'll give you one example: A company purchased one of my green supplier's e-blasts, the company sells solar thermal technology to heat water using the sun, and an engineer at a property in Atlanta, saw the ad, called the company and the company installed

the system. The engineer and the supplier are very happy with the system, the owner of the hotel is thinking about installing the system in other hotels. So, it's just an example of how Green Lodging News is keeping engineers top of mind as it's producing content.



*What drives sustainability technology and progression for hotels?*

It's just the supply and demand. Suppliers meeting the demands of hotels interested in saving money and running their hotels more efficiently.

*Do luxury and upscale hotels focus on different sustainable trends than budget and economy hotels? If so, what are they?*

Luxury and upscale hotels tend to have more capability and resources to invest in and adopt more sophisticated energy and water programs. Even on the recycling side, economy-type hotels have a more challenging time trying to implementing that type of program. It ultimately goes down to resources, larger properties have more employees to implement programs.

*Where could hotels expand their efforts to improve efficiency?*

More hotels could be implementing guest room energy management systems. One of the things the Green Lodging Survey found is that there are still a lot of hotels that have yet to implement digital thermostats.

*What are some of the less expensive ways that hotels can go green?*

A towel and linen reuse program is probably the least expensive, the ROI is just one week from what I understand. The other critical thing we haven't talked about yet is having a sustainability champion in your hotel. Just having someone, a green team, or someone leading the efforts is critical to the success of any sustainability initiative. Even if it's the engineer, because if the employees aren't trained or passionate about sustainability, chances are the program's going to be less successful.

*I read in your company's report that one survey respondent wrote: "In hospitality, it is very difficult to get investments on items that are not obvious aesthetic improvements. Unless a firm ROI can be demonstrated, capital dollars are spent on appearance and guest comfort rather than sustainability projects." So how can hotels implement more sustainable and efficient practices and technologies when management is positioned against it?*

I think it's all about making a strong financial case for implementation of the new products or technologies. My opinion is that suppliers, those who sell these products and technologies, often don't make a good enough case or don't provide enough documentation to give the engineer on the property the ammunition to go to ownership to make the case for investment in a particular product or technology. Some of these



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are no-brainers, like LED lighting, guest room energy systems, certain types of technologies that have been around for years and have been proven in value and their ROI time period is well established. Some of the more cutting-edge technologies may be a tougher sell.



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# Damaging Social Media Reviews and Lost Revenue Inspire Hotels to Solve ‘Sleepless’ Night Syndrome

*Innovative acoustic soundproof solutions reduce street noise, improve customer satisfaction and help restore online reputations*

Online trip advisory reviews have ushered in a harsh new business environment for hotels, motels and inns that live or die by referrals. If a guest had a lousy night’s sleep due to exterior noise from traffic, railroads or activity at the swimming pool, do not be surprised if the manager is the last to know. Viral grouching has gone ballistic and its impact can be immediate and long-lasting for hospitality chains that lack a nimble damage control strategy.

The absence of a posted review does not necessarily indicate satisfaction either. A guest that is unhappy with a room due to excessive exterior noise may say nothing to management, but likely will not return. They may also complain to friends and business associates, where

negative word-of-mouth travels fast. This also can take a bite out of revenue. Now who is having a sleepless night?

Despite harsh online rebukes, well managed hotels acknowledge that they are prisoners of a paradox: They must build near major thoroughfares, highways and rail services so that they are accessible and convenient; yet location is often the source of the noise problem.

As noise awareness grows, some proprietors mistakenly believe the only solution is replacing every window – an expensive upgrade with no guarantee of success.

But Howard Hospitality, a hotel developer and hospitality management company, discovered a simpler solution that was cost-effective, did not require re



***“Viral grousing has gone ballistic and its impact can be immediate and long-lasting for hospitality chains that lack a nimble damage control strategy.”***

moving the existing windows, and quickly restored its online reputation – even though the site that needed remediation is located near roaring roadways.

### **Acoustic Test Windows**

The guests of Residence Inn Sandestin at Grand Boulevard in Miramar Beach, FL often complained about road noise. The hotel fronts a busy street and highway. Despite excellent staff service, guest feedback included remarks such as, “I couldn’t get a good night’s sleep,” according to Tania Koehler, Director of Hotel Operations for Howard Hospitality that manages the Marriott property.

She calculated that about 74 percent of the negative comments the hotel received through online review sites, like TripAdvisor, also mentioned the noise as “extremely high.”

For more than a year, management researched solutions. Multiple studies revealed that 90 percent of noise seeps through windows, not walls. And dual-pane windows may effectively deter heat and cold, but a much different type of acoustic engineering is needed to block loud, exterior sounds.

Much to their relief, they also learned that they did not need to replace every window in their inn. In fact, the best solution for many sites is to add a second, inner soundproofing window. This method controls temperature as well as eliminates intrusive noise. And these special panels, which open and close (or not) just like the windows already present, need only be applied to areas where noise is most disruptive.

In 2015 Howard Hospitality contracted with Soundproof Windows, Inc., to install 176 special inner windows along the front of the Residence Inn Sandestin at Grand Boulevard. The company won the bid not merely because their product was less expensive than competitors. Koehler says the quality of the windows, the testing process and specificity of the plan to resolve the noise nuisance were superior.

“Other companies were vague about solutions. But the Soundproof Windows people stayed with us for two nights and tested the noise themselves. They explained the type of materials they used and how they sealed the windows, and even explained where the screws would be inserted. They were very clear about how and why their plan would work,” she says.



**Guestroom with a second, inner soundproofing window**

The window company, founded in 1998, did not just measure decibels and offer solutions. Howard Hospitality was convinced to sign on after engineers installed one test window in a two-room suite. The noise-levels dropped 95 percent.

“It was pretty amazing. The change was night and day,” she says.

In 2014, Residence Inn Sandestin at Grand Boulevard was ranked 74th among 687 Residence Inn hotels nationwide. In 2015, after the installation the ranking jumped to 14th, and the online noise complaints all but disappeared.

Koehler says her company will soon add the sound

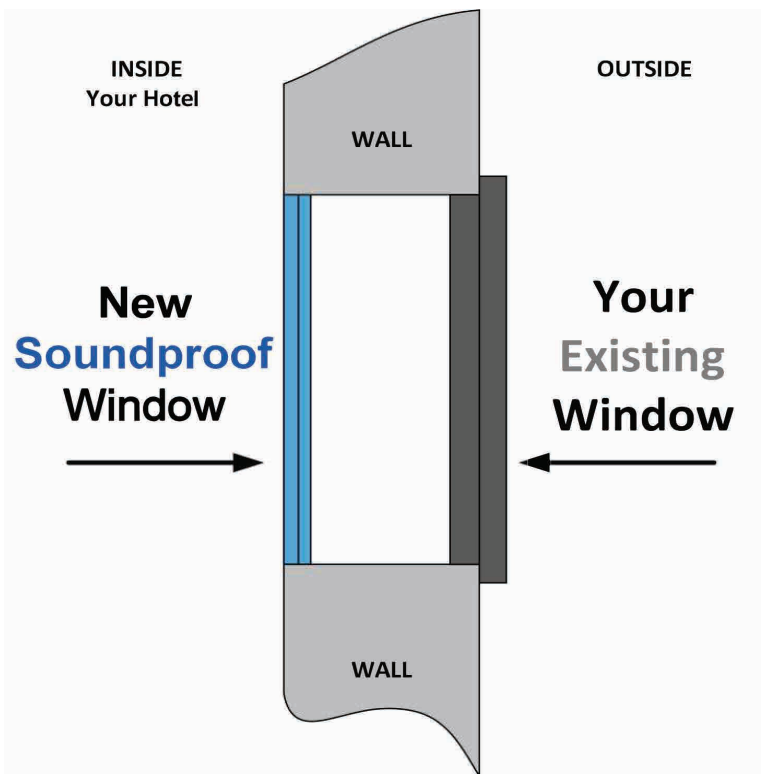
***“The product chosen by Howard Hospitality was engineered by professionals that have developed strategies for sound recording studios, one of the most noise sensitive environments on the planet.”***

proof windows to 16 more rooms on a corner of the inn near a major highway.

Acoustic expertise is the key to successful remediation, industry reports say. It is not enough to add thicker or more layers of glass. The product chosen by Howard Hospitality was engineered by professionals that have developed strategies for sound recording studios, one of the most noise sensitive environments on the planet.

Also, when comparing the efficiency of window products, look for a rating called Sound Transmission Class (STC.) The higher the number, the more noise is stopped. A typical rating for standard windows is 26 to 28. By adding the soundproof windows installed in Florida, the STC rating is now 52 to 55.

Industry insiders also advise buyers to be wary. Some manufacturers provide an STC rating only for the glass they use, not including the window frames. This can be deceptive because successful noise reduction is based on factors such as the seals, the air gap between the windows, and the acoustic design of the window frames.



CA is not a designated historic site, but it was built in the 1960s next to a railroad crossing. Passenger and freight trains, north and south bound, regularly blow through with horns blaring and safety guard rails ringing their alarms.

***The majority of our online reviews at TripAdvisor and other sites were people being inconvenienced by the noise.***

## Historic Remedy

Historic districts that preserve beautiful, but aging, buildings also create problems for ownership. Since the exterior design cannot be tampered with, swapping out old windows for new is rarely approved—even if guests complain regularly about noise. By installing an inner window, hospitality teams improve occupant experience and respect architectural history.

Mark Everton, area managing director for Commune Hotels and Resorts, faced a different challenge. The Waterfront Hotel at Jack London Square in Oakland,

“The majority of our online reviews at TripAdvisor and other sites were people being inconvenienced by the noise. And our internal guest satisfaction survey was equally negative in that area,” he says.

Another problem arose when in 2010 a new ownership group decided the site needed noise remediation. But replacing windows would do considerable damage to the stucco façade. It fell to Everton to find an economical remedy.

When his research turned up Soundproof Windows,





Inc., Everton was intrigued but not convinced. He chose three guest rooms, stacked on multiple floors in the front of the hotel. One room was not altered. Test windows were installed in the other two rooms, one with a 5/8" thick inner window and the other with 1/4" window.

Then Everton hired an independent acoustic firm to analyze the test results.

When compared to the room without an inner window, the room with the 5/8-inch glass inner window eliminated noise by 75 percent, exceeding the other test product. The experiment won Everton over and also proved that noise was entering through the windows, not the walls.

Still, the order for 75 windows was challenging because the face of the building has a variety of window sizes and shapes: rectangular that open and port-hole style. Sliding doors opening into patios are also used in some rooms.

Fortunately, Soundproof Windows can be configured to match any existing style of window, as well as sliding doors. The installation took a week.

"Our online scores and ranking have gone up. In our internal survey, before the change, noise was our number one complaint. Now it has receded to an occasional mention," says Everton, adding, TripAdvisor now ranks the Waterfront at No. 2 out of 48 Oakland hotels, up from No.9.

This year the Waterfront Hotel's owners approved installation of Soundproof Windows in the rest of the hotel.

"The better product you have, the better reputation you have," adds Everton.

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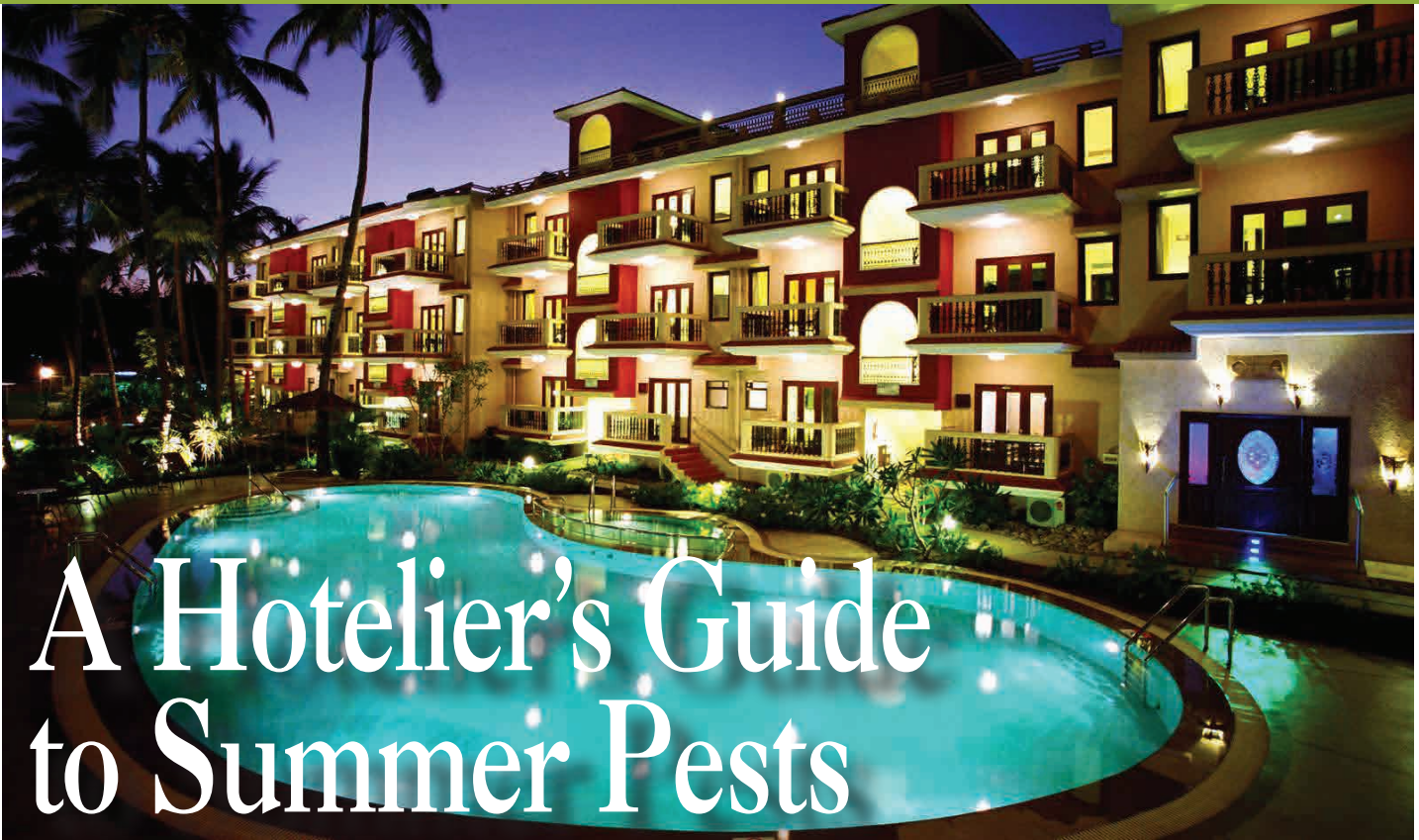
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# A Hotelier's Guide to Summer Pests

## Easy tips to help reduce some of summer's most aggravating pests

By Chelle Hartzler, BCE  
Technical Services Manager, Orkin, LLC

To ensure your summer months remain profitable and well-reviewed, it's important to safeguard your reputation by keeping pests at bay. So how do you combat summer pests? We've got great tips to arm yourself against some of the most exasperating pests.

### Mosquitoes



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*"With review sites such as TripAdvisor at every guest's fingertips, one pest sighting can seriously harm your reputation and your bottom line."*

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Summer has finally arrived, and hospitality professionals everywhere are fully-enveloped in peak travel season. But the warmer temperatures and increased crowds bring more than just revenue – they also bring increased pest activity. This is especially true this year, because the unusually warm winter we experienced resulted in more pests surviving winter and reproducing earlier.

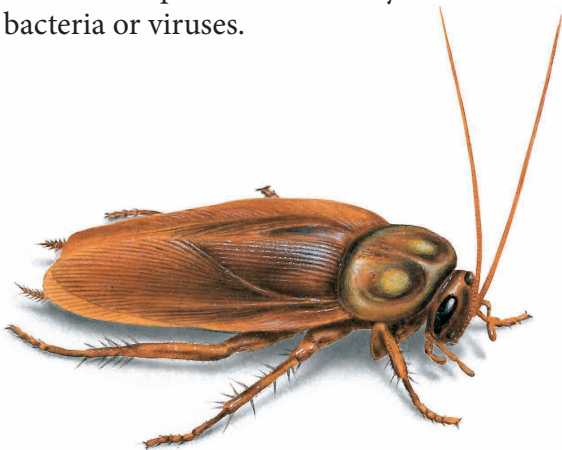
Mosquitoes are a particularly hot topic right now because they're not only a nuisance, but a health concern. They're potential carriers of dangerous diseases such as West Nile virus, Dengue fever and Zika virus. At the very least, their presence can leave guests with red, itchy bites and cause them to be annoyed. To keep mosquito populations around your property at a minimum, it's important to reduce favorable breeding grounds. Mosquitoes only need a thimble-full of water

to reproduce, so reducing or eliminating standing water is crucial. Consider the following tips:

- Avoid puddle formation and standing water by grading uneven land.
- Clean gutters regularly to avoid rainwater build-up.
- Water features should be well-circulated and pools should be treated and chlorinated. If you cannot circulate the water, drain the water feature weekly.
- Avoid vegetation that holds water, such as bromeliads, or sweet-smelling flowers. Mosquitoes feed on flower nectar between blood meals.
- Check for and remove standing water in dishes below potted plants or any other outside containers that may hold water.
- Keep landscaping neat, trimmed and at least two feet away from your building's foundation.
- Plant mosquito-repellant plants around walkways, patios and pool areas. These could include citronella grass, rosemary, marigolds or even catnip.
- Consider installing fans on patios and sitting areas on your property. Mosquitoes are poor flyers, so moving air can help keep them away from the area and from bothering guests.

## Cockroaches

The hospitality industry is very familiar with cockroaches and the damage a sighting can do to a hotel's reputation. These insects are especially common during the summer months due to their love of warm, damp environments. Not only are these insects unsightly, but since they are found in dirty situations, they can pick up and transfer particles that may be contaminated with bacteria or viruses.



Large populations can result in aggravating sensitive people's allergies. To help prevent roaches this summer, consider the following:

- Keep temperatures inside your hotel a bit on the cool side. Cockroaches reproduce quicker at warmer temperatures so keeping it cooler will help.
- Repair leaking pipes or plumbing problems as soon as they are identified.
- Dispose of trash in appropriate waste receptacles and cover with tight-fitting lids. Don't forget the outside dumpsters as well!
- In foodservice areas, clean spills, crumbs and other potential food sources immediately.
- Seal holes and gaps in walls, around the floor-wall junctions and around pipes. Cockroaches can squeeze through cracks as thin as a dime.
- Cockroaches seek out dark, covered harborage areas so avoid accumulating clutter in offices, kitchens or behind the front desk.

## Flies



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***Flies carry twice as many pathogens as cockroaches and are considered one of the dirtiest pests***

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Nobody likes a fly buzzing around their head, but the ick-factor associated with flies is often underestimated. Flies carry twice as many pathogens as cockroaches and are considered one of the dirtiest pests. They can carry bacteria and are capable of transmitting salmonella, E. Coli, staphylococcus and shigella. Flies are often a sign of a deeper sanitation issue. This can lead to more pest problems and, consequently, more poor reviews. Shoo flies away by following these tips:

- Rotting garbage is a fly's ideal meal, so remove trash daily and ensure all trashcans, both indoors and outdoors, have a plastic liner and tight lid. Don't forget to wash out trash bins when needed.
- Install air curtains at entrances to keep flies from sneaking in before doors shut -- air curtains are fans





that create a “wall” of air that flies have trouble flying through. Check that window screens are secure and free of tears or holes.

Avoid letting grass clippings or other decaying material accumulate on the surrounding property.

Warm weather can quickly accelerate decomposition, so clean up spills, litter and food immediately.

Keeping your property pest-free this summer is no

small feat. Work with a pest management professional to develop an Integrated Pest Management (IPM) program tailored to your unique needs. IPM goes beyond traditional pest control methods by focusing on non-chemical techniques such as exclusion, sanitation and maintenance to help prevent the conditions that attract or harbor pests. With a defensive pest strategy and a collaborative effort among your staff, you’ll have bugs checking out in no time.

Chelle Hartzer is Technical Services Manager for Orkin. She is a board-certified entomologist and provides technical support and guidance across all Rollins brands in the areas of operations, marketing and training.

For more information, email [mhartzer@rollins.com](mailto:mhartzer@rollins.com) or visit [www.orkincommercial.com](http://www.orkincommercial.com).

A promotional graphic for an Orkin webinar. On the left, there is a profile shot of a man wearing a white hard hat and a white shirt. The background is dark. In the center, the text "FREE MOSQUITO WEBINAR" is written in large, bold letters, with "FREE" and "WEBINAR" in white and "MOSQUITO" in red. Below this, the date and time "Wednesday, May 10 1:30 pm – 2:30 pm (EDT)" are listed in white. At the bottom, it says "Register now at NAHLE.org" in red. In the top right corner, the Orkin logo is displayed, consisting of a red diamond shape with the word "ORKIN" in white, and the tagline "PEST CONTROL DOWN TO A SCIENCE" below it. On the far right, there is a vertical copyright notice: "© 2017 Orkin, LLC".

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# COMMON WATER SYSTEM PROBLEMS IN HOTELS AND THE BEST REPAIR OPTIONS

By Amanda Strouse

**Y**our hotel's complex piping infrastructure can be thought of as the human body. Arteries and veins work tirelessly, 24/7, to carry blood throughout your body, much like the way water and drain pipe systems work in a building. Internal bleeding or clogs in the circulatory system are severely worrisome, expensive and disruptive to one's life. Similarly, when pipes leak, clog or have other failures, these are expensive and disruptive symptoms of a failing piping system – and they should be taken care of immediately, just as you would if the symptoms occurred within your own body.

The health of a hotel's plumbing systems is critical to the longevity of the systems and the hotel's structure, in general. Routine checkups, maintenance and proactive protocols are all necessary components for ensuring optimum plumbing system efficiency and a long lifespan. However, some of these preemptive approaches are overlooked or undermined, which can snowball a small problem into a catastrophe.

## Common Problems For Water Systems

There is a lot that can go wrong in water piping sys-

tems, especially for the large, powerful systems in lodging properties, where the plumbing never takes a day off. The chemistry between the water (especially after it has gone through a treatment plant), oxygen and the metal in the pipes slowly causes the pipes to corrode or erode, increasingly making the pipe system more vulnerable and thus, laying the groundwork for a future plumbing disaster.



Water system failures in hotels are expensive, disruptive to business, bad for PR and can cause many other undesirable implications. Not to mention, leaking, inefficient or poorly maintained plumbing systems can significantly raise your property's electricity and water costs. The key is to understand what common prob

lems may arise from certain water piping systems, and then to routinely check for warning signals.

**Domestic water pipe system's common problems:** Pinhole leaks, under slab/foundation leaks, corrosion buildup, low water pressure, metal leaching (such as lead and copper), discolored water and legionella bacteria buildup.

**HVAC system's common problems:** Pinhole leaks, scale buildup, poor air flow, uneven air temperature, individual room AC unit problems (such as failing motor or dirty filter), chiller malfunctions and boiler/condenser problems.

**Fire sprinkler system's common problems:** MIC (microbiologically influenced corrosion) buildup that may result in pinhole leaks interior or obstructions. Leaks are dangerous and can be expensive to fix, but a poorly maintained fire suppression system can result in the system's failure to operate during a fire.

**Irrigation system's common problems:** Blocked or broken sprinkler heads, stuck valves, leaks or irrigation controller failure.

### Long-Term, Preventative Mindset

Think of your job as the protector of your hotel's investment on its infrastructure, landscape and building(s). To accomplish this, you must know the property in and out, understand what components are new versus old, know where infrastructure is hidden, stay educated about the latest diagnostics technology and keep to a routine maintenance plan.

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***"Your job shouldn't be to chase problems – you should be able to anticipate potential problems and then use modern technology to prevent them."***

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Regular maintenance should include visual inspections, energy and water usage reports, water treatment processes, camera inspections, infrared thermal imaging technology and similar processes. Water quality, water pressure, old plumbing fixtures and everything in the mechanical room should be carefully monitored, as well.

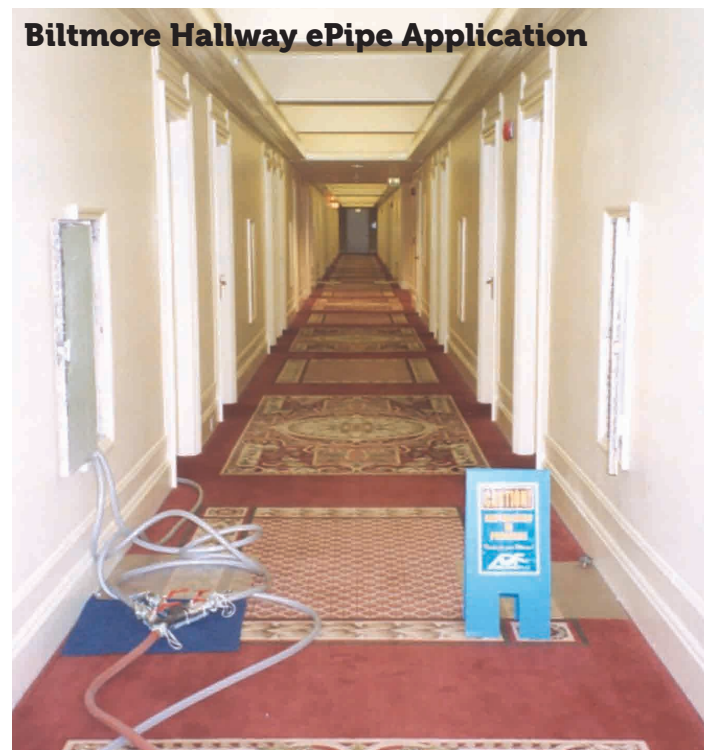
If your hotel's water pipes are starting to show signs of deterioration, anything from discoloration on the pipes to low water pressure to mold growth, believe me when I say the problem is not ONLY within that one specific location. Your hotel most likely has miles of pipes throughout it, and you can bet that any one water problem you or a guest locates will be found in other places.

This is why small, temporary repairs are nonsensical and a waste of resources. Why spend money on Band-Aid-type, short-term fixes when that technically means they do not work? For plumbing systems, long-term repair options prolong the lifespan of the system and increases efficiency, saving your hotel a ton of money and keeping guests happy, as well as your boss.

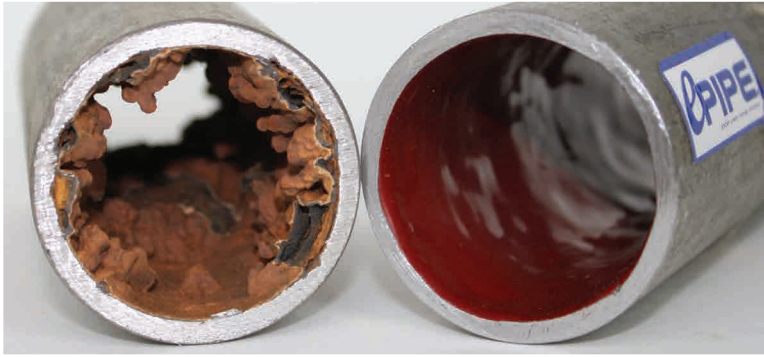
### The Best Option For Hotels

Hotels basically have two choices for long-term water plumbing system repair: a repipe or pipe lining.

A repipe, also known as a pipe replacement, is a traditional plumbing method that has more disadvantages than advantages. Piping systems inside hotels are tucked inside walls, ceilings and floors, which would mean that repipes would cause an enormous amount of damage, a detrimental amount of room closures and debilitating business loss.







However, today's hotel engineers need to be using today's technology. The alternative to the before-mentioned repipe is pipe lining. This modern restoration process embraces the "reuse and recycle" approach to rehabilitate existing pipe systems, sans destruction and guest room closure. Pipe lining is such a beneficial solution for a vulnerable or busy environment, that it



is widely sought out during remodels or renovations, because the work can be completed in conjunction



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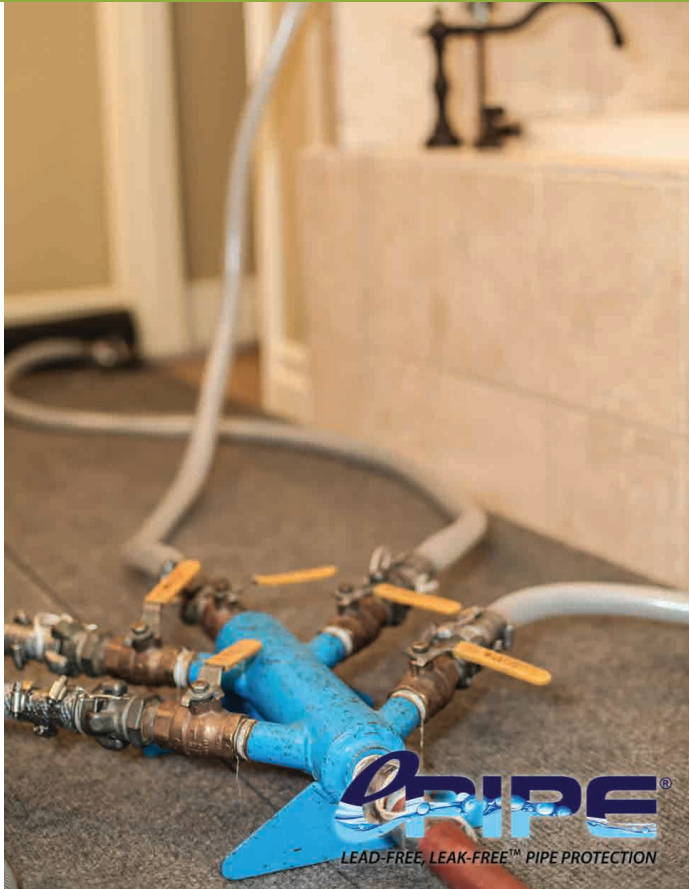
***However, today's hotel engineers need to be using today's technology. The alternative to the before-mentioned repipe is pipe lining. This modern restoration process embraces the "reuse and recycle" approach to rehabilitate existing pipe systems, sans destruction and guest room closure.***

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with other contractors working on-site, whereas repipes cannot.

Pipe lining, or more specifically, epoxy coatings for clean water systems, have a wide range of benefits, which include lower costs, minor to no destruction, extremely little to no disruption to the property, eco-friendly methods and more efficient than repipes.

The procedure for pipe lining is generally the same for all patented technologies: equipment setup at pipe system's access points must be completed first; the pipe system is next cleaned, dried and prepped for adhesion using hot, compressed air via mobile compressor; then liquid epoxy is introduced to the pipe system and pushed throughout the interior of the pipes using the clean, hot air; the epoxy is left a certain number



of pre-determined hours to properly cure; once the epoxy has cured, a thin, yet extremely strong layer of epoxy is left in the interior of the pipe system. This barrier coating protects the pipes from common failures, including leaks, corrosion buildup and metal leaching.

This non-invasive pipe restoration method keeps pipe systems intact, ultimately preserving the hotel's structure, landscape and hardscape, including flooring, wall paper, shrubbery and parking lots. Hotel engineers can use pipe lining to gain all the benefits of a traditional repipe, minus all of the inconveniences and expenses that come with it. Plus, lab tests indicate that pipe lining can extend the useful life of a pipe system to that of many years past the average lifespan of new pipes.

## Conclusion

You may have heard about the 80/20 rule for hotel maintenance: 80 percent of maintenance duties should be proactive, while 20 percent should be reactive responses to spontaneous problems. This is an excellent piece of advice. Your job shouldn't be to chase problems – you should be able to anticipate potential problems and then use modern technology to prevent them.

Don't wait until your hotel metaphorically suffers a heart attack. Utilizing good plumbing habits, creating a routine plumbing maintenance plan and investing in pipe lining technology are very smart investments for the sake of your guests, the hotel's bottom line and the lifespan of the property.

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Amanda Strouse is on the marketing and public relations team for world-leading pipe lining technology innovator, ACE DuraFlo, the creator of the patented ePIPE product and worldwide group of installers that utilize the patented ePIPE process to restore pipes in-place. ACE DuraFlo's revolutionary epoxy coating system, ePIPE, is the industry's fastest curing epoxy coating, with a cure time of two hours. ePIPE has been chosen as the modern re-piping alternative by thousands of building owners and by the world's leaders in the plumbing industry. An alternative to a destructive and disruptive repipe, this process is achieved using an application of a blown-in epoxy barrier coating, which results in a restored, epoxy lined piping system. The cost-effective and eco-friendly process provides a remedy for pinhole leaks, epoxy lining, corrosion control and prevention of lead leaching from pipes. ePIPE products are engineered to exceed EU and North American standards. For more information, contact us at [www.restoremypipes.com](http://www.restoremypipes.com) or 1-800-359-6369.



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- ✓ Lock out tag out review, basics of how to use fire extinguisher,
- ✓ Review of safety data sheets on how to read them and where to find them in each department,
- ✓ Chemicals blood borne pathogens how to protect yourself, kits that are available for you to use, and
- ✓ How to dispose of needles properly with tools we have available to protect yourself.



by Manny Mercado, CDOE

## Success in the classroom leads to success in the field A MUST DO

**H**i everyone! Today I want to talk about a training refresher of the basics. I know many of you out there have had orientation for new hires on rules, policies, and brands standards that you have to follow. This start up of your employment consists of some training items that are required for you to do your job and resources available for you to use in case of an emergency. After this initial training you are sent on your way and see you later.

Have you given any thought after a few years that those initial hires might have forgotten what they had learned during orientation and are working blindly? Meaning if a situation occurred would they know how to react and respond? Well that's where I come in as safety committee chairman along with our human resource department. We put together a class on 'Back To Basics' training. We recently had our 1st class on 'Back To Basics' and our topics covered which ones were of importance including:

- Fire evacuation procedures and maps for each department with posted locations,
- In case of fire how to react, what you need to know and do,
- Lock out tag out review, basics of how to use fire extinguisher,
- Review of safety data sheets on how to read them and where to find them in each department,
- Chemicals blood borne pathogens how to protect yourself, kits that are available for you to use, and
- How to dispose of needles properly with tools we have available to protect yourself.



***When emergency situations happen you want to feel that you staff is like a well trained army equipped with all the information they need...***

With this information-refresher type class we feel very confident that our staff is ready to handle a situation if it does come to light. We are in line to do another class within 4 weeks to gather other associates who were not able to make the first class. We will continue this training until all of our associates have gotten this refresher on 'Back To Basics.'

The training we did was about 40 minutes long hitting each and every topic on our agenda. I used online training videos posted on Youtube.com for FREE. I filtered out many videos and found about 3 good 5-minute long videos that hit our target of information we wanted to out. Utilizing videos and information sheets helped to make this training flawless.

So go around and ask each staff member about these basic items I mentioned and see if they know anything about it or how it pertains to their property. I can guarantee you that most will say they do not know. After you gather your notes, put a class together to hit those items that most need clarification or review. As with any training, you need to make sure you have a sign-in sheet to show that the information topic was reviewed with the training member and associate.

Staying well informed and spreading this knowledge to each associate goes a long way. When emergency situations happen you want to feel that you staff is like a well trained army equipped with all the information they need to help each other through this experience. Without a well-informed staff you know it is not going to go well with many associates asking what do I do and where do I go.

Working in a hotel environment for many years in my career as chief engineer and safety chairman, I have always been able to make sure we work safely and share the safety knowledge that we all need to know to make our hotel - a safe place for ourselves and our guests. As with your training always tell them after each topic of discussion DO NOT TAKE SHORT CUTS.



**Put an End to Hot Water Complaints**

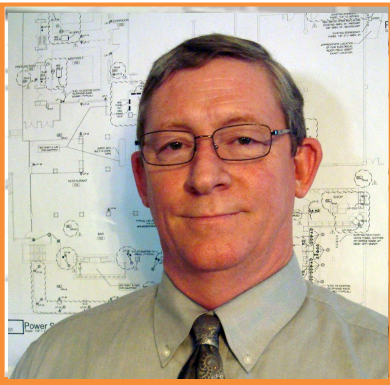
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# Kitchen Preventive Maintenance

By Todd Isbell



In the hospitality industry, we in the engineering field must take good care of our kitchen equipment. We never want a health inspector to come in and have to shut us down for reasons we can and should have controlled.

We should always take the time at least twice a day to record cooler and freezer temperature readings not only from the walk-in units but the reach-in units as well. Daily logs keep us informed if something could be wrong with the units by a varying temperature, the activity surrounding the unit, and especially when and how often the freezer units go into defrost mode which should also be printed on the log sheets for all to see. I have gotten many calls throughout my tenure that the freezer units are too warm, only to go and find they are in defrost.

A good thing to do is set the defrost timers when no one is around; such as 11pm and again at 5am. Possibly in the middle of the day if there is a break in kitchen activity. Also communicate to all kitchen personnel these times so they understand and know. The daily logs should be attached to each individual unit, clearly marked as to what unit it belongs to. At the end of the month, put the logs in a file for the health inspector to see should there be any discrepancy in their readings compared to your every day twice a day readings.

All cooler and freezers have condenser and evaporator coils that need to be cleaned at least monthly. Failure to do this can cause anything from compressor head pressures to rise causing internal overload and shut down of the units, to fan failure or even compromising the compressor of the unit. This can be very costly not only to repair the unit, but for food loss as well. Check door gaskets at least once a week to ensure proper sealing and to stop cold air from escaping. You can set up reminders in your outlook calendars to do certain preventive maintenance schedules as not all of this needs to be nor can it be done in one day. Some properties have a system of preventive maintenance work orders that print out or remind them when certain actions are due.





Fryers, griddles, and flat tops also need maintenance. Are the standing pilot lights lit? Everything in the kitchen should be looked at weekly from ceiling tiles to floor tiles and everything in between. I walk through my kitchens at least 3 times a day just looking around for any discrepancy that may cause an issue. Some things I see, don't necessarily have to be done immediately, but I take notes and make sure they get done in a timely manner before they become problems.

Always enter and exit your kitchens if possible from different doors each day to avoid tunnel vision. This is when you get so used to walking the same route every day, you miss things you would otherwise catch if you weren't so used to going in that way. Do you always see the same highway signs every day? Yes of course you see them, but do you "notice" them? Most of us probably don't.

When performing your preventive maintenance tasks, also be aware of hinges, burner knobs, and door gaskets etc. Ensure flames are blue and not yellow and/or producing smoke. This ensures you have proper combustion. Check your hood exhaust fans

and make sure they are clean and in good working order. Frayed electrical wires are another form of possible failures especially on reach-in food warmers. I won't go into how often people forget to unplug them before moving, and pull the wires either out of the plug or completely out of the unit itself. Running over the wires with the wheels is also a cause of issues. Bare and exposed wires can ruin a person's day or worse.

Listening is also a natural and great way to detect issues. Are your motors running smoothly or do they have a noticeable sound? Check your garbage disposal for noises such as utensils or glass grinding sounds. Ensure the grate is in place to prevent this from happening. Dishwashers should be checked for water leaks, scale buildup temperatures etc. Check your water temperatures from wash and rinse cycles. Make sure they are at regulated temperatures. Convection ovens, listen to the blower wheels, they should run quiet. Look at the doors and seals. Ensure they are working and aligned correctly.

All of these practices are to ensure proper operation of your equipment. And, keep in mind.....

***Not all can be completed in a day, but if you make a list, plan your work and work your plan, it will become second nature to you.***



# There doesn't have to be an app for that...

By Richard Manzolina

After twenty five years of maintaining hotels, I've learned there are lots of ways to improve the efficiency and efficacy of maintenance operations. Many require substantial investments in technology, equipment, automation, and classroom training, but I've also found lots of low or no cost techniques that can be just as impactful. These tips and tricks improve productivity and efficiency, just as their costly counterparts do, only without a substantial investment in time or money.

Admittedly, none of these ideas are groundbreaking. For sure, many of you are already using some or all of these methods to make your operations leaner and teams more effective. Nevertheless, sometimes a nod to old school practices can be just the shot in the arm a stagnant maintenance team needs to revitalize

their operations or to help a new team establish good practices.

### This Is My Dance Space...

One thing we all have in our buildings is mechanical rooms; spaces that fall under the domain of *everyone's* responsibility but inevitably end up being maintained by *no one*. It seems it's always easier to assume the next guy will clean up the mess, and before long you can't even see the floor in these rooms. To combat this, consider assigning ownership of each room to a member of your team. *Literally* put their name on the door, so that they and everyone else in the organization knows who owns that space. This simple technique can be very effective and has made a huge impact in my operations. The resultant sense of pride and ownership installed is palpable, and unlike many programs, this one can be virtually self-sustaining. A well timed public *atta-boy* for the engineer whose floor is painted and





*Assigning mechanical rooms can install a sense of ownership in a maintenance operation.*

whose lights are all working can be all it takes to keep everyone motivated and keep your mechanical spaces looking their best.

### Teach A Man To Fish And You Feed Him For A Lifetime

Everyone would agree training is helpful and necessary for team member development. But all too often, bringing training to fruition takes a back seat to budget constraints or the emergency of the day. Similarly, the thought of corralling your team into a meeting room for several hours to launch a new training module can be as daunting a task as it is impossible. So what's the solution? Simple. Break up training into small, easily approachable steps that last no more than 15 – 20 minutes. Short training periods are great for keeping your team's attention, and easily fold into your routine. For that matter, consider pairing this training with an existing meeting. For my team, our daily line-up meeting often doubles as an impromptu training session. Simple tasks or techniques are reviewed quickly and easily, like how to program televisions, sweat copper pipe, change a ballast, or wire a receptacle. The team loves the break in our routine, and never shies away from a chance to play with tools.

Also, consider having a member of your line staff lead this training rather than a department leader. Many

will welcome the chance to show off their skills and the peer-on-peer atmosphere can make for a more open discussion of ideas. And it's a lot of fun too!

### There's No Free Lunch, But There Can Be Free Training...

While we're on the topic of training, remember a great training resource to tap into is your local supply network. Virtually all equipment and supply manufacturers have reps who will gladly come to your site and teach your staff how to properly use their product. Simply leverage your existing relationships and let the sales reps to the heavy lifting. Want to show your staff how

to fix a toilet? Ask Ferguson to send out their Kohler representative. Tired of your powered drain cleaner breaking after just a few days of use...have Grainger send their Rigid rep out for a demonstration. The names and companies are interchangeable, but the principle is equally effective across virtually all disciplines. And many, many manufacturer's reps exist solely for the benefit of the end user. They are not in sales, and there is no sales pitch. They only exist to improve the use and awareness of their product in the marketplace, so they will not only train your staff, but they'll help you size equipment, specify projects, or offer a host of other services...and all free of charge.

### A Place For Everything And Everything In Its Place

There are no shortage of proverbs attempting to instill in us a sense of order and organization. *A place for everything, and everything in its place* is one of my favorites, and reminds me of my next tip for streamlining your operations and enhancing productivity... creating and maintaining par stocks. One of the most frustrating and time wasting activities that plague maintenance operations is time spent searching for tools and materials. While many of us maintain an inventory of commonly used parts and supplies, those supplies are often stored in a haphazard or disorderly manner, causing your team to waste lots of time searching for

these materials. Or worse still, they will give up and reorder more of something you already have.

in exchange for securing your business, and if they are not, consider making a change. There are countless

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***While technology and innovation remain stalwart facets of our industry, traditional old-school methods will always have a place in our facilities***

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Organized, well maintained inventories are by far the best solution to combat this common problem. In the past, dedicated storerooms and stock clerks handled this for us, but those positions are long retired. Instead, taking the time to set up and maintain an organized par stock system typically falls on building managers, but often remains on the pile of great ideas that they just don't have time to get to. So what's the solution? Easy. Don't take the time...have your vendors do it. You spend lots of money buying light bulbs, fan belts, wax rings and alike. Why not let the vendors who benefit from all these purchases set up the systems to keep it all organized? Most are more than happy to do so



vendors willing to provide this service, and lots of options for organizing shops of all sizes. From plastic bins to parts vending machines to bar code software, today's stock of innovative inventory systems are boundless. Take a few minutes to find the best fit for your operation and your team, and your wallet will appreciate the savings.

While technology and innovation remain stalwart facets of our industry, traditional old-school methods such as these will always have a place in our facilities, helping us to continue to achieve more with less. Hopefully, you've found a nugget or two in the preceding paragraphs to help your operations.

*Using digital tool lockers or vending machine lockers can be a great way to control your inventory of tool and supplies.*





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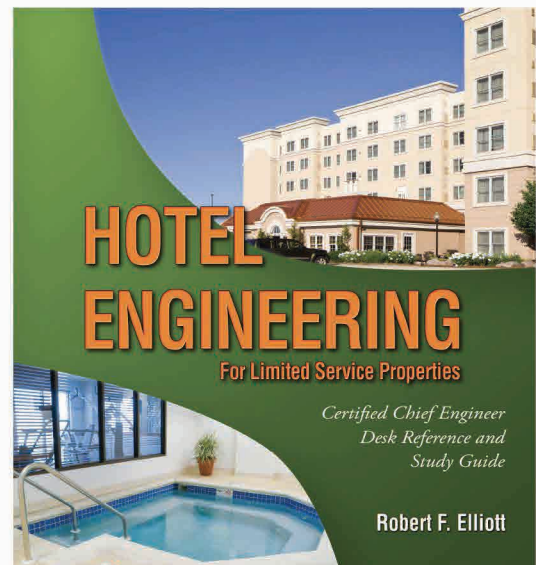
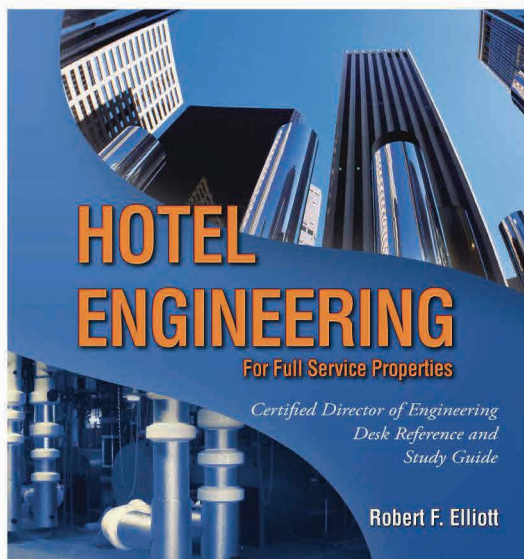


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# Training Today's Hotel Engineer To Be Tomorrow's Asset Manager

**Our Curriculum** is written in plain English with simple and easy to understand words. Our program includes information related to the planning and organizing of tasks, overviews of building engineering systems, and the financial and ethical skills required to operate effectively within a hotel organization. The limited-service program includes many common CDOE chapters as well as additional chapters that among others, focuses on; low-rise wood-frame construction, through-wall penetrations, saline pools, moisture infiltration and PTAC units.

## Here is what NAHLE Certified Engineers across the U.S. are saying about our programs:

### *Certified Director of Engineering (CDOE) – Full Service Hotels*

*"I've been an engineering manager for over 14 years, 10 in limited service and the last 4 in full service at the Marriott Renaissance Plantation. For a while I've been searching for a certification designed specifically to enhance my knowledge and competency in hotel engineering. My supervisor recommended the CCE certification from NAHLE and I must tell you this course hits all areas and key points from what you need to know to keep your facility maintained and running efficiently to being compliant with most city, state and federal codes and regulations. It's an all around great self-study course for the hotel Chief Engineer and DOE, and to this day I keep my study guide on my shelf as a reference if ever needed. I am also honored to be the first person to be designated CDOE (Certified Director of Engineer) from NAHLE and a proud member."*

### *Certified Chief Engineer (CCE) – Select Service Hotels*

In my opinion the course was very informative because it covered very important themes focused on the system or the equipment we work with everyday at the hotel. Everything was explained with basic examples and simple words.

*I think that the course benefits every Chief Engineer that takes it and also the company. Because it helps them do their work more organized and it helps understand the functions of each system they work with.*

As a Reference source the Book was informative. There were nuggets of information in each section. The high points were the HVAC chapter and the Building Design and Construction chapters.

*The information was presented good and was easy to understand. The online tracking was easy to get to and follow along with. The program overall was very good but I would maybe have liked to see a section for finance and include more general HVAC'S knowledge (heat pump's and chiller's).*

*I think the program it's great, it definitely was a reinforcement in some areas that I was familiar with and a great learning experience in others that didn't have much knowledge. Very straight forward, seems to me that whoever put this course together must to have been in the field.*



# Program Attributes

**Program Revision 2016** - Both our CDOE and CCE programs have been transferred to our new Online Management Software. Our CCE program now offers the CCE study guide online along with practice exams for each chapter to assist engineers in their review and preparation for their required exams. Our CDOE's new printing includes a useful Index to help engineers during their study and as a future reference.

**Transferable:** By focusing on the principles of management, building engineering systems, and the hotel building and its property grounds, we created a curriculum that is easily transferable across different hotel brands and property types.

**Informed Decision Making:** When hotel engineers become better informed, their decision making process improves and they in turn tend to lead others, especially their own staff, to a higher quality standard. This new level of professionalism is best reflected in your property's appearance, staff productivity and efficiency and increasing the useful life of your property's building systems and equipment.

**Hotel Centric:** Both our Certified Director of Engineering (CDOE) and our Certified Chief Engineer (CCE) programs are written exclusively for hotels and lodging properties. From the heart-of-the-house to the property's perimeter access, NAHLE's certification programs are all about hotels and the unique environment of mixed-use occupancies.

**Self-Paced Study:** Our programs are designed for engineers to study at their property and learn at their own speed. An experienced engineer should complete our full service (CDOE) program in about 40 hours typically stretched out over a few months. While the limited-service (CCE) program averages about 20 hours of study. Our curriculums are both based upon the engineer remaining on property and studying on the job.

**Online Registration & Technical Support:** Both Nahle and EI register candidates online and provide technical phone support.

**Reporting:** Nahle has online software available should you want to track study hours for limited-service candidates. We can also provide exam results for groups of properties.

**Multiple Property Roll-Out:** Our programs are designed for management companies to enroll multiple engineers in the program at the same time and have all candidates working toward their certification concurrently.

**Online Exams:** Candidates are designated as a certified engineer upon the successful completion of multiple sectional tests administered online by EI. The CDOE program has two tests and the CCE has three tests. Each sectional test is comprised of numerous multiple-choice test questions drawn from the Study Guide's individual chapters. A minimum passing score of 70% is required. Applicants may take Sectional tests twice.

**Certificate of Completion:** Upon successful completion of the course, NAHLE issues an electronic certificate suitable for high quality color printing. The certificate designates the candidate as successfully completing the educational requirements to become a Certified Chief Engineer or Certified Director of Engineering.

**All Program Candidates Provided One Year Free NAHLE Membership:** Free job postings and *Lodging Engineer* magazine.



# NAHLE - Membership Services

- **Lodging Engineer** - NAHLE's official digital trade magazine focuses specifically on hotel engineering and maintenance. All articles are exclusively written for *Lodging Engineer (LE)*. Members can access archived issues and print pdf versions. The electronic version of *LE* magazine also contains links for accessing additional product information including advertisers' websites.
- **eNewsletter** - our weekly eNewsletter focuses on current events and regulatory issues. Links to other online articles and magazines are provided allowing members to download featured articles and product advertisements for hotels.
- **Forum/Blog** – a electronic forum where 'members only' can exchange ideas and information with their peers in a threaded discussion format.
- **Job Bank** – a single source for finding and posting hotel engineering and maintenance job openings.
- **Calendar** – lists upcoming events, webinars, and meetings
- **Resource Library** – an organized and searchable database of both print articles and video. Documents include past LE articles, federal regulations, case studies, and maintenance checklists, etc. Videos are searchable and include 'how-to instructions' and product information.
- **Buyer's Product Guide** – an electronic buyer's guide which lists service vendors, suppliers and product manufacturers. Searches for local vendors by zip code.
- **Document Management** – a document management system that catalogues and tracks time sensitive information and documents such as warranties, permits and licenses. Program tracks unlimited number of documents in a three level searchable database that you create. The program sends you and other identified recipients a reminder via email of a future specified date or impending expiration that you choose .

**Nahle's Value Proposition:** Investing in your staff's professional development challenges engineers to apply their knowledge to the very same systems they are responsible for maintaining on a daily basis. Educational training creates trust and loyalty among your employees. And, perhaps most important, uniform education and training creates an environment of informed decision making. For hotel engineers and maintenance workers, completing a certificate program can be the most cost effective way to **Catch Up, Keep Up and Stay Ahead** of the competition. ([Read more at Lodging Engineer](#)) Studies show that men who complete certificate programs of less than one year earn roughly 10% more than those who do not have such a certificate ([Georgetown University Study 2012](#)). More and more owners expect their engineers to know and apply what is quickly becoming 'common knowledge.'



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