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Reducing the Risk

HOSPITALS IMPROVE PRODUCTIVITY AND SATISFACTION
BY CLEANING WITH MICROFIBER PRODUCTS

Each year, more than 2 million Americans develop Hospital Acquired Infections (HAI) and 90,000 patients die from them, according to the Centers for Disease Control and Prevention (CDC).

Even with extensive procedures and policies in place to eliminate HAI, these infections may pose an increasing threat to patients during their hospital stay, according to the CDC. Proper hand washing and maintaining clean IV sites and wound dressings

centers in the San Francisco Bay area. Carlos Benitez is an environmental services supervisor who oversees maintenance of Good Samaritan's San Jose facility and its Mission Oaks campus in Los Gatos, which together have approximately 500 beds.

Carlos and his staff handle everything from basic floor cleanings to intensive, deep cleanings needed in surgery areas. He says preventing hospital acquired infections is a huge concern. "With the older, smaller, traditional mops, our cleaning was not as effective. Also, employees developed back and shoulder problems because of the heavy, wooden handles and weight of the mops," he adds. Since switching to microfiber two years ago, Carlos has seen a reduction in those problems. He notes that microfiber mops are flat, lightweight and easy to maneuver, enabling staff to clean more thoroughly and quickly.

"We used to use johnny mops which were small, hand-sized sponge mops, but now we use microfiber mops for cleaning floors and walls," Carlos says. "They're bigger and we can clean faster and more effectively." For example, it previously took four or five people to clean 12 rooms each night. With microfiber mops, the same job only requires three people and takes less time.

"I'm always looking to get more productivity and higher quality results," Carlos explains. "Infection control is our top priority at the hospital, and I know we're helping to achieve that whenever we improve the quality of our cleaning."

Microfiber products collect and hold dust, dirt and allergens better than traditional cleaning methods and have been shown to reduce bacteria levels by as much as 99 percent, according to the Environmental Protection Agency. Carlos has noticed that micro-

fiber cleaning uses less water and cleaning chemicals, which saves cost and time while reducing the risk of cross-contamination. His staff uses both wet and dry microfiber pads,



Microfiber cleaning products are better for cleaning because the increased surface area of each split fiber lets it grab and retain more dirt particles.



More and more hospitals are discovering the benefits of using microfiber cleaning products.

are among the top precautions, but more and more hospitals are also using microfiber cleaning products to reduce infection risk.

One such provider is Good Samaritan Hospital in San Jose, Calif., a full-service, acute-care facility and one of the largest medical

as well as special buckets to reduce spills. Microfiber products also help reduce noise and disturbance to patients. "We can use the new mops much more easily under beds and in other hard-to-reach places," Carlos says. In the past, mop strings would get caught under the wheels of patient beds, sometimes jarring the bed and disturbing a patient.

Not only must healthcare facilities be clean, they must look clean. "Our previous mops looked dirty quickly, which is especially bad when a patient's family is in the room during cleaning," Carlos says. "They would assume we were using the same mop for several rooms, not realizing that a fresh mop is used for each room. Now we use a new microfiber mop for each room, but they don't show the dirt, they're more durable in the wash, and they make a much better impression on visitors." He adds that the use of microfiber products is believed to have contributed to an increase in the hospital's customer satisfaction score.

"We used traditional kinds of mops for 20 years, but they could no longer keep up with today's cleaning standards," Carlos says. "They'd look bad after only five to 10 washings, and it affected people's impressions of the hospital. Microfiber products look and perform better. They're easy to wash, store and handle. We've even had visitors ask where we bought them." **SL**

For a complete selection of microfiber products from Grainger, visit www.grainger.com/microfiber

Correctional Facilities See Benefits of Going Green

ENERGY COSTS REDUCED WHILE CONDITIONS ARE IMPROVED

Going green may not seem like a main concern for a correctional institution, especially when security, safety and cost-efficient operations are top priorities. But the benefits of environmentally friendly facilities are causing correctional facilities nationwide to find more ways to save energy, which can lead to improved rehabilitative and correctional environments.

However, correctional facilities have unique needs that can make this quite a challenge.

OFFSETTING HIGH ENERGY USE

Correctional facilities use relatively large amounts of water and electricity because of their 24-hour occupancy levels and usage needs. The R.J. Donovan Correctional Facility in San Diego, Calif., which houses over 4,000 inmates and 1,300 support staff, uses over 290 million gallons of water per year at a cost of over \$1,900,000, according to a 2005 audit*.

Some facilities, including the King County Regional Justice Center in Kent, Wash., attempt to reduce electrical usage by using natural daylight in some interior spaces such as dayrooms. However, for security reasons, current prison designs may not permit exterior windows within cells.

SOME FACILITIES ALREADY SAVING

Facilities around the country are assessing their current energy waste and savings opportunities, and some are already reducing costs.

With rising natural gas prices, correctional facilities are using alternatives such as wind power and solar energy. The Phoenix, Ariz., Federal Correctional Institution uses sunlight to heat 50,000 gallons of water daily for inmates and staff, saving tens of thousands of dollars yearly. The Federal Correctional Center in Victorville, Calif., generates electricity

with a wind turbine and a covered parking structure equipped with solar panels. The Indiana Department of Correction uses biomass corn boilers as a less expensive, cleaner-burning source for many of its energy needs.

North Carolina's Butner Federal Prison is the first LEED-certified correctional institution in the U.S. (LEED™ is a program of the U.S. Green Building Council and stands for Leadership in Energy and Environmental Design.) This medium-security campus houses more than 1,100 inmates and uses environmentally friendly design and maintenance for its buildings and grounds. The facility's outside areas are designed to deflect summer heat. Large amounts of water are saved by using low-flow plumbing fixtures and landscaping that needs little irrigation.

In California, San Mateo County replaced its outdated juvenile justice facility in 2006 with a new Youth Services Center that complies with the county's green building policy. The campus uses an energy-saving cogeneration plant for lighting, heating and hot water. Cogeneration generates both electricity and heat. It creates more energy by reusing the excess heat that would usually be wasted in a conventional power plant. Efficient plumbing fixtures were installed

Correctional institutions are discovering that the benefits of energy efficiency include better rehabilitative environments.



at the center to reduce water use by as much as 20 percent. A specially designed "cool roof" (a roof made of light-colored materials and covered with a coating to reflect sunlight) greatly reduces the building's heat absorption, saving on air conditioning costs and reducing roof maintenance.

With rising natural gas prices, correctional facilities are using alternatives such as wind power and solar energy.

To reduce outdoor watering, the landscaping includes drought-tolerant native plants. The recreation field is constructed with synthetic grass and recycled tires, reducing water and maintenance costs.

Whether a facility starts with a big plan or small efforts, many opportunities exist to save energy and reduce costs. Creating an energy-efficient facility also helps correctional institutions benefit local economies and save taxpayers' money. **SL**

For more products to support your facility's environmental program, visit www.grainger.com/gogreen

**Audit performed by Water Management, Inc. as commissioned by the San Diego Water Authority and Otay Water District.*

Additional information for this article came from web sites of the following sources: "Services for Administration of a Pilot Commercial and Institutional Water Use Survey Project"; Federal Bureau of Prisons; U.S. Department of Energy Federal Energy Management Program; San Mateo County Youth Services Center Press Packet, September 2006; Timmons Group; Correctional News; Indiana Department of Correction.

market SPOTLIGHT

Alaska

LIVING AND WORKING AMID EXTREME CLIMATES,
REMOTE LOCATIONS AND NATURAL WONDERS

At 591,000 square miles, Alaska is as wide as the lower 48 states and larger than Texas, California and Montana combined. This expansive market presents unique challenges and opportunities for those who live and do business there. (You may even see a moose on your way to the office.)

Alaska is justifiably known for snow, ice and cold. The state is generally well-prepared for its heavy snowfalls, so it's rare that the cities shut down because of them. However, the climate regularly tests its residents. This spring, the Anchorage Water and Wastewater Utility had to deal with fire hydrants popping out of the ground because of unusually deep frost penetrating nearly 10 feet underground.

In contrast, Alaska summer temperatures can reach 90°F. In fact, Fairbanks experiences some of the largest temperature swings in the nation.

Mother Nature keeps Alaskans on their toes with occasional forest fires, volcanoes, earthquakes and tsunamis. With these natural hazards and potent winters, Alaska businesses place extra emphasis on safety procedures, equipment and preparedness. The amount of daylight is also an issue, affecting sleep patterns and other aspects of daily life. In Fairbanks, the longest summer day has nearly 22 hours of daylight, and the shortest winter day has less than four hours of light.



Compared to the lower 48 states, Alaska's Aleutian Islands stretch all the way to San Francisco, while its southeast panhandle extends to Jacksonville, Fla.

GETTING SUPPLIES

By land, sea or air, Alaska presents unique logistics challenges. A business based in Anchorage may have operations 800 miles away, and supplies and equipment may have to cross terrain including mountains, dense forests, sprawling river valleys and remote tundra. Air freight carriers are heavily utilized because Alaska's road system

only serves about 25 percent of the state, with some highways impassable between October and May. In addition, many businesses are located off the road system or on islands.

"We really have to understand customer locations, local climate conditions, which carriers to use, and how to deliver products efficiently and in perfect condition," says Kurt Smole, District Sales Manager based at Grainger's Anchorage branch. If air transport is suddenly grounded because of poor visibility, a trucking or other solution may be quickly needed, Kurt says. Products must be packaged to survive temperature extremes (-40°F to 40°F in a single trip) and bumpy rides in small aircraft



The climate and geography of Alaska present challenges to businesses, including the occasional moose, as pictured at Grainger's Fairbanks branch.

or off-road vehicles. Because of volatile weather, relatively high transportation costs, and time needed to reach remote locations, a service failure may cost three times more than it would in the contiguous 48 states.

For many local businesses, the best option to receive supplies is via the river. Most waterways north of Anchorage freeze each winter, leaving a three-month window in summer when ice melts, allowing businesses to get the bulk of their supplies via river barges.

RAW ENERGY

Alaska's vast petro-chemical industry includes the 800-mile-long Trans-Alaska Pipeline System. It's owned by a consortium of companies which maintains and operates 12 pump stations along the pipeline. Pipeline teams require a regular supply of specialized equipment such as safety gear, as well as humidifiers, filtration items, lighting and lunchroom supplies.

Energy consumption is also a challenge. Costs of living and utilities are relatively high, primarily because of limited and costly resource distribution. On a given day, gasoline might cost twice as much per gallon in Barrow (the continent's northernmost point) as it costs in Anchorage. So, businesses with operations in multiple locations must anticipate and budget for dramatically different transportation costs, and use their available resources wisely. Additionally, access to natural gas is limited, and many rural communities rely on diesel generators.

GRAINGER LOCATIONS

Grainger has two Alaska branch locations, Anchorage and Fairbanks. The Fairbanks branch opened September 2006. Customers now have access to more than 25,000 products including safety, janitorial and lighting supplies, as well as motors and material handling equipment.

The Anchorage branch recently nearly doubled in size. The expanded showroom offers customers more products that are conveniently displayed so customers can easily find the items they need.

The Grainger Anchorage and Fairbanks branches know how to deal with Alaska's unique climate and supply chain obstacles. Because of that local experience, the branches are known for delivering efficient, dependable service. **SL**

Information courtesy: Anchorage Daily News; Alaska.com; Alyeska Pipeline Service Company; Grainger staff in Fairbanks, Anchorage and Seattle.

For more information, visit www.grainger.com/ak

When the Lights Go Out, Go With the Glow

PHOTOLUMINESCENT PRODUCTS HELP IMPROVE HOTEL AND HIGH-RISE SAFETY

If the power goes out in your hotel or high-rise commercial property, can your guests and employees safely find their way out in the dark? Do you have an updated, tested evacuation plan ready to go?

Based on recommendations of the World Trade Center (WTC) Commission, New York City enacted Local Law 26 (LL26) requiring commercial properties over 75 feet tall to have emergency evacuation stairwells equipped with photoluminescent markings and signage. While New York City is the first city to require photoluminescent markings in stairwells, the code serves as a guideline to help people safely and quickly exit buildings in any lights-out emergency. For example, many hotels across the country are implementing “glow-in-the-dark” exit path markings to improve safety for guests and staff. They’re also realizing energy savings or “green” benefits that photoluminescent products provide.

Improving safety requires understanding emergency conditions. In addition to the challenges presented by darkness and smoke, the pressure of a crisis situation makes it harder for people to think clearly. These factors make clear, bright, visually instructive exit path markings even more valuable to building occupants. Hotel facility managers and owners should understand this and make every reasonable effort to ensure that hotel guests and staff can navigate passageways and stairs as rapidly as possible.

GLOWING BENEFITS

The WTC Commission and others have embraced photoluminescent technology for three main reasons. First, it’s a failsafe technology that works without electricity – no batteries to replace, no connections to test, no light bulbs to burn out or break. Photoluminescent

products automatically recharge once the lights are turned on and have a much longer and brighter glow than old materials, helping to speed evacuation during a lights-out emergency.

Secondly, photoluminescent materials are cost-effective, easy to install, and easy to maintain because they require no wiring or battery back-up. Photoluminescent tapes and signs can be designed to withstand wear and tear, making them a reliable solution that’s always ready in an emergency.

Finally, photoluminescent markings are a proven solution. According to an investigation* into the World Trade Center evacuation process, existing photoluminescent markings in the stairwells were among the most commonly reported forms of aid in evacuating the buildings, from which approximately 14,000 occupants escaped.

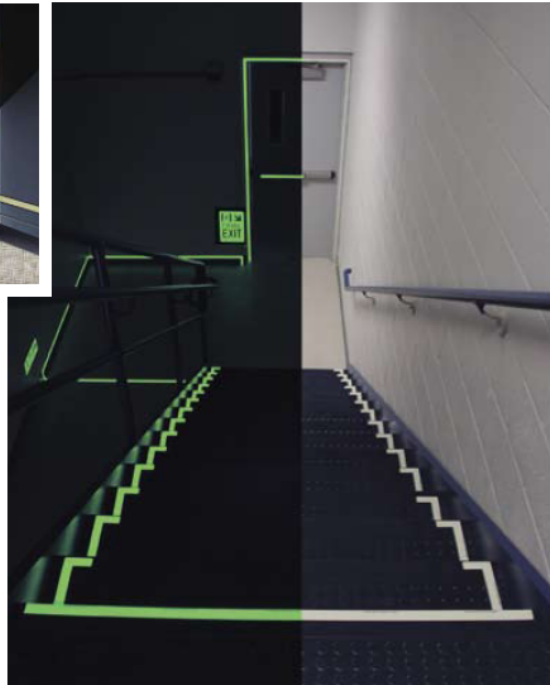
Photoluminescent exit signs are another welcome addition to current exit marking technology. They require no electricity and are always “on,” providing a cost-effective, “green” solution that improves safety and lowers energy use.

WHERE TO INSTALL

Photoluminescent signs are an important part of a complete exit marking system. In a lights-out emergency, people must be able to easily locate the exit stairwells. Placing directional exit signs along the route to the stairwell at a low level (18” from the floor to the top of the signs) adds an extra degree of safety by ensuring clear visibility to the stairwell even if smoke blocks the view of high level exit signs. Markings installed near floor level are visible to building occupants who might be crawling along stairwells to avoid smoke.



These split images show what photoluminescent markings look like under normal lighting (right side of each image) and when the lights go out (left side of each image). Photoluminescent markings increase the safety and efficiency of emergency evacuations.



* Conducted by the National Institute of Standards and Technology

Once in the stairwell, photoluminescent signs continue to play a critical role in facilitating safe and fast exits. In accordance with the National Fire Protec-

A properly installed photoluminescent evacuation system will provide a clear, unbroken exit route during any lights-out emergency.

tion Agency codes (NFPA 170), hotels are required to install stairwell identification and re-entry signs to help all building occupants evacuate safely and to provide fire department personnel with critical life-saving information.

Although not mandated, some buildings are replacing their “nonglow” signs with photoluminescent signs to ensure clear visibility and readability in a lights-out situation. Another option is to install customized photoluminescent labels above door handles indicating the floor you are on and the nearest re-entry points.

In addition, fire protection and emergency equipment, final exits, intermediate exits, and dead-ends (such as utility and electrical closets) can be identified with photoluminescent signage. Custom photoluminescent signs are available in many configurations.

MAKING THE BRIGHT CHOICES

Photoluminescent products are available in both self-adhesive and aluminum-backed materials to accommodate various surfaces. Self-sticking adhesive tapes are lightweight, conformable and easy to install. They require a clean, smooth, dry, nonporous surface for proper adhesion. Aluminum-backed rigid products are used with a special adhesive that is applied on-site and performs better on rough or porous surfaces. Most hotels require both types of materials for differ-

ent surface textures and traffic patterns in the building.

When you choose a photoluminescent exit marking system, consider current building codes and other safety standards. For example, photoluminescent exit signs should

meet the Underwriters Laboratories (UL) 924 standard for emergency lighting and power equipment. Signs that meet the UL 924 standard can be used as code-compliant alternatives to electric exit signs. Exit signs should also be approved under the U.S. Environmental Protection Agency’s Energy Star program, as well as additional safety codes. (See “Heading for the Exits.”)

A properly installed photoluminescent evacuation system will provide a clear, unbroken exit route during any lights-out emergency, helping guests and staff quickly and safely exit your hotel. Choosing a durable, industrial-grade photoluminescent marking solution will help ensure that your evacuation system is cost-effective, easy to maintain and ready to use for years to come. **SL**

To learn more, and to see an entire assortment of photoluminescent products, visit www.grainger.com/bradyglo

Information for this article is courtesy of Brady Corporation.

HEADING FOR THE EXITS

HOW TO CHOOSE PHOTOLUMINESCENT MARKING PRODUCTS

Beyond installation and long-term maintenance costs of photoluminescent marking systems, consider these factors:

- Durable materials – ensure fast installation and long product life.
- Low-profile, pressure-sensitive adhesive products – easily conform to handrails, stand pipes, and other circular shapes for faster application.
- Materials and Equipment Acceptance (MEA)-approved products made for NYC LL26 compliance – ensure a consistent level of product quality for those outside NYC.

WHERE TO PLACE

To ensure the safest and fastest possible evacuation from multi-story hotels during any lights-out emergency, hotels are using NYC LL26 as a guide and have begun to use photoluminescent markings or signage on:

- Doors opening to exits, exit passageways or horizontal passageways
- Corridors that serve as required exit passageways connecting two vertical exits
- Individual stairs, landings and perimeters of exit routes
- Handrails
- Hazards and obstructions within or along the means of exit
- Horizontal extensions in vertical exits, horizontal exits and exit passageways

CODES AND STANDARDS

Current building codes and safety standards regarding photoluminescent marking systems include:

- NFPA Life Safety Code 101
- Sections 1003.2.8, 1007.2.7 and 1007.6.2 of the 1997 Uniform Building Code™ (UBC)
- Section 1003.2.10 of the 2000 International Building Code® (IBC)
- Section 1023 of the BOCA National Building Code/1999
- Section 1016.3 of the 1999 Standard Building Code
- NFPA 5000, IBC 2000, IBCO, BOCA, SBCCI, and ICC ES