

# In the News

## Pneumatic Nailers Under Fire Again

**A**n April 2008 investigative report in the *Sacramento (Calif.) Bee* has brought to a rolling boil the long-simmering dispute between the building industry and safety experts over contact-triggered (or “bump-fired”) pneumatic nailers.

While some might fault the report’s tone as overly sensational — a good part of it dwells on graphic descriptions of injuries and interviews with family members of fatally injured workers — it raises a question that can’t easily be dismissed: Is the speed and convenience allegedly gained by using contact-triggered nailing worth the tens of thousands of injuries — and at least a few deaths — that it causes each year? (The *Bee* story is posted online at [www.sacbee.com/health/story/850428.html](http://www.sacbee.com/health/story/850428.html).)

**Crunching the numbers.** Duke University researcher Hester Lipscomb has been tracking pneumatic nailer use and associated rates of injury for more than a decade, and was among the experts cited by the newspaper story.

During an interview with *JLC*, she confirmed the *Bee*’s report of 42,000 nailer injuries per year, a figure she attributes to a study published in the public-health journal *Morbidity and Mortality Weekly Report* in 2007. That number — 42,000 — was recorded at the height of the recent construction boom in 2005; the annual average during the five-year study came in somewhat lower, at 37,000 injuries. However, these figures cover only those injuries that led to an emergency-room visit; according to Lipscomb, the total number of injuries — many of which are self-treated — is certainly much higher.

The *Bee* story also reported Lipscomb’s finding that workers using contact-triggered tools have an injury rate twice that of workers using sequentially triggered tools, which require the operator to manually activate the trigger for each fastener. And that’s actually a best-case scenario: Lipscomb told *JLC* that this doubling of injury rates with contact-fired nailers is typical among experienced, well-trained workers. When inexperienced and poorly trained — or untrained — workers are considered as well, injury rates climb even higher.

Other research Lipscomb has conducted reaches similar conclusions about the dangers of bump-nailing. In 2003 she and three co-authors published a report based on a multiyear study of actual accident rates among hundreds of residential carpenters in the St. Louis area. The authors estimated that 65 percent of the injuries incurred while using contact-trip nailers could have been prevented if sequential firing had been used instead. Yet another study — this one among carpenters in Ohio and North Carolina — concluded that 69 percent of nailer injuries could be attributed to inadvertent nailer discharge or misfire; both problems can be largely eliminated by using sequential triggers.

Interestingly, the St. Louis study also showed that 70 percent of the studied injuries were associated with tasks typical of framing — rather than with flat-nailing jobs like sheathing — so it’s possible regulatory agencies

■ In response to what it calls “a small number of Tacoma vehicles exhibiting excessive corrosion of the frame,” Toyota is offering to buy back models sold from 1995 to 2000. The company will pay one-and-a-half times the Kelley Blue Book “excellent condition” value to owners of pickups with frame damage too serious to repair, and has extended the original warranties of all listed trucks from three years and 36,000 miles to 15 years and unlimited mileage. The program covers an estimated 813,000 trucks and is expected to cost the manufacturer up to \$100 million. For details, including information on how to schedule a free frame inspection, call Toyota at 800/331-4331.

■ For the first time in its history, building-materials giant Home Depot has announced the closure of selected flagship stores for poor performance. Over half the 15 stores slated to close are located in the central states: three in Wisconsin, two each in Ohio and Indiana, and one each in Kentucky, Minnesota, and North Dakota. The others are in Louisiana, New Jersey, New York, and Vermont. Even after the closures, the company will operate more than 2,200 stores in the U.S., Canada, Mexico, and China.

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would deem bump-nailing acceptably safe for some applications even if sequential-trip nailers are mandated for framing.

**Just a matter of time.** In 2002, pneumatic tool manufacturers responded to growing safety concerns by adopting ANSI standard SNT-101-2002, under which they voluntarily ship tools from the factory in sequential-trigger mode.

Most of these tools, however, are designed to be — and almost always are — converted to contact triggering by the user, either with an easily installed conversion kit or by flipping a selector switch. Given the continued high injury rate since the adoption of the standard, some industry insiders concede that an outright ban on contact-triggered nailers may be inevitable.

“I believe it’s coming,” says Chris Dutra, vice president for product development at Stanley-Bostitch. “Whether it’s next year or in two or three years, it’s probably just a matter of time.”

Such regulation, in Dutra’s view, won’t necessarily have a major impact on the industry. “If regulators tell everyone they have to go with sequential triggers, we’ll just do it,” he says. “It’s really not an issue as long as there’s a level playing field.”

But Dutra dismisses out of hand one contention made

in the *Bee* report: that manufacturers prefer to sell contact-triggered tools because they use more nails. “That’s ridiculous,” he says. “As someone who’s been involved in product development for years, I can tell you that’s never, ever even been discussed.”

**More to come.** One question not addressed by the *Sacramento Bee* — but of great interest to those in the building trades — is whether a wholesale shift to sequential-fire tools would overwork trigger fingers enough to cause an upsurge in repetitive-motion injuries.

Lipscomb, for one, doesn’t expect that to happen. She notes that the St. Louis study — which examined every injury associated with nailer use, not just puncture wounds — found only two cases of repetitive-motion injury. (One worker also suffered a back injury from picking up a nailer.) And even if increased use of sequential-trip nailers did lead to more such injuries in the future, she argues, the overall injury picture would be far less dire than it is today, and any problems that did emerge could be corrected with better-designed triggers.

Also unknown is what effect a phase-out of contact-trip nailers would have on productivity. Although many builders are convinced that contact-trigger tools are substantially more efficient than sequential-trigger guns, there’s little solid data to back that assumption up. It’s a void Lipscomb’s team plans to begin filling with a new study slated to be released this summer. Stay tuned for more information. — *Jon Vara*

## Broken Compact Fluorescents: Handle With Care

**W**hat’s a conscientious builder to do? Because compact fluorescent lamps (CFLs) are so much more energy-efficient than ordinary incandescents, using them helps reduce the coal-fired power-plant emissions that are a significant source of toxic mercury in the environment. Yet CFLs themselves contain mercury: When a bulb is broken, the mercury is released, creating a potential indoor health hazard. It’s an issue builders can expect to hear about from their clients as CFLs become increasingly popular.

As it happens, two recent reports — one from the

Vermont-based Mercury Policy Project and the other from the Maine Department of Environmental Protection — offer some perspective on the mercury threat, as well as guidelines on how to clean up broken bulbs. Neither recommends that consumers stop using CFLs — only that their use be avoided in certain applications, such as in easily overturned lamps in a child’s room.

Both reports conclude that a single broken CFL can release enough vaporized mercury to create a short-term spike in the indoor mercury level. The increase is significant enough to be cause for concern. The federal

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Agency for Toxic Substances and Disease Registry, for example, sets the maximum safe “reoccupancy level” — the point at which it’s safe to move back into a mercury-contaminated building that’s been decontaminated — at 1,000 nanograms of mercury per cubic meter of air. (One nanogram is equal to one billionth of a gram.)

Tests performed by the Maine DEP found that indoor levels could briefly rise to as high as 100,000 nanograms of mercury per cubic meter of air immediately after a lamp was broken. In one case, a Maine field inspector measured a level of nearly 2,000 nanograms of mercury per cubic meter of air directly above the spot where a lamp had broken on a carpet several days earlier.

However, the two studies also found that the airborne mercury levels quickly fall to near-background levels once a space has been ventilated to the outdoors.

It’s best to take a common-sense approach to dealing with a broken bulb: Immediately open a window to allow the vaporized mercury to escape and — if possible — close the door to the room where the break occurred. Once the space has ventilated for 30 minutes, carefully pick up the larger fragments and put them in a glass jar; use duct tape to lift chips and dust and then place it, too, in the jar. Seal the jar tightly for disposal. (State laws on disposal of broken fluorescents vary. Some require that they be handled as household hazardous waste, while others consider them regular trash.)

Both studies caution against sweeping or vacuuming the area, which can spread particles of mercury over a wide area.

According to Maine DEP’s Stacey Ladner, bulbs that have broken on a carpeted surface are especially problematic because they’re very difficult to clean thoroughly. If children or pregnant women live in the house, Ladner says it may be worth cutting out a dinner-plate-sized piece of carpeting at the site of the break to prevent any retained mercury from becoming airborne later.

To read the reports, go to [www.jlconline.com/maine](http://www.jlconline.com/maine) and [www.jlconline.com/mercury](http://www.jlconline.com/mercury). — J.V.

### RECALL

DeWalt is recalling  
13,000 of its DW744

portable 10-inch table saws because of a defective pivot bracket that can allow the blade and rip fence to misalign, possibly resulting in kickback. The recalled saws were sold at home centers and hardware stores nationwide from April 2007 through January of this year. To see if your saw is affected, check the date code on the nameplate located on the front of the tool; affected models will have date codes ranging from 200715 to 200740. Saws with an “X” stamped on the nameplate next to the date code are not included in the recall.

If your saw is among those recalled, stop using it immediately and contact DeWalt at 888/742-9178 to obtain a free replacement.

## Go Green, Big Builder

According to a recent study by the Calvert Group, a Maryland-based investment management firm, the nation’s largest home builders — already reeling from falling home prices and a critical shortage of buyers — now have something else to worry about: They’re falling behind smaller, more responsive companies in the fast-growing area of green and sustainable building.

“We believe that if these companies wish to continue as market leaders in new residential construction,” the study’s authors wrote of large, publicly traded home builders, “they should embrace the opportunity to drive the market toward more green building. If they do not, they face the risk that smaller companies will surpass them in meeting this growing area of consumer demand.”

The study also ranked the country’s 13 biggest builders numerically according to their commitment to sustainable environmental practices. KB Home tops the list, followed by D.R. Horton and Pulte, which tie for second. NVR comes in last, behind MDC Holdings and Standard Pacific.

To see the complete study, go to [www.calvert.com](http://www.calvert.com). — J.V.