

# NOTEBOOK

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EDITED BY JON VARA

## New Arsenic Scare Puts Spotlight on PT Lumber

Treated-wood industry ready with alternatives

For at least the second time in four years, pressure-treated wood containing chromated copper arsenate (CCA) is the subject of a consumer scare resulting from press reports of elevated arsenic levels in soils (see *Notebook*, 6/97). This time, the controversy centers on the state of Florida, where a warm, moist climate conducive to insect damage and decay means that virtually every outdoor structure meant to last more than a few years is made from CCA-treated wood.

**Contaminated playgrounds.** In March, the St. Petersburg *Times* newspaper ran a special report on arsenic and pressure-treated lumber titled "The Poison in Your Backyard." The paper hired a private laboratory to test the soil next to embedded pressure-treated posts at five randomly selected playgrounds in the

Tampa Bay area. In each case, the lab found elevated levels of arsenic in the soil. At one playground, the paper reported, the arsenic level was eleven times greater than the level that the state considers safe for neighborhoods, or three times the allowable post-cleanup level at Florida toxic-waste sites.

The report has created an uproar. Coincidentally, soon after the Florida story broke, national newspapers began reporting on an unrelated controversy over federal standards for arsenic in drinking water, giving the story a higher profile than it might have had otherwise.

City officials in Tarpon Springs, Fla., temporarily closed a playground that had tested positive for arsenic after receiving numerous calls from concerned parents. The *Times* itself was flooded with calls from

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## Construction High School

The first publicly funded high school in the country to concentrate on the construction trades is slated to open in September in St. Louis, Mo. The new charter school, called the Construction Careers Center, is the result of months of hard work by area educators and the local chapter of the Associated General Contractors (AGC), which conceived the plan. Although the school will receive public funding, it will be run as a nonprofit educational corporation, like other charter schools.

Classes at the four-year high school will focus as much as possible on a construction curriculum. "In geometry class, they'll be talking about square yards of carpet. In chemistry, they'll be studying the properties of concrete," says Leonard Toenjes, president of AGC of St. Louis.

Construction programs in high schools around the country have been struggling against a nationwide trend away from vocational education (see *Notebook*, 9/00). "We have not had a full four-year vocational high school in St. Louis for the last 15 years," says Toenjes. He says he is pleased at the support that the AGC proposal has received from the St. Louis Public School System, which has agreed to lease a building to the new charter school. "We've cleared some major hurdles to get this far," says Toenjes. "Now our student recruitment has kicked into high gear."



ST. LOUIS PUBLIC SCHOOL SYSTEM

After planned rehab work is completed in this former St. Louis middle school, the 1939 building will reopen as the Construction Careers Center, a high school offering instruction in construction skills.

**New Arsenic Scare**

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worried homeowners seeking information on testing the soil in their own yards for arsenic. Obliging, the paper published information on several area laboratories that perform the test for about \$40 per sample.

**Is it safe?** There's no question that CCA is potentially hazardous. The EPA recommends that workers cutting CCA-treated lumber should wear a dust mask and goggles as protection from flying particles, should wash hands before eating, drinking, or smoking, and should wash work clothes that have been exposed to CCA separately from other household clothing.

Even so, there have been well-documented cases of workers suffering arsenic poisoning as a result of contact with treated wood. The *Times* story cited the cases of a U.S. Forest Service employee who contracted arsenic poisoning while building picnic tables, and a Washington State homeowner who became permanently disabled when he used pressure-treated lumber still wet from treatment to build a swimming raft at his lakefront property.

But most public health experts believe that the risk of cancer from long-term exposure to low levels of arsenic — the biggest concern of most consumers — is low. And according to Scott Ramminger, president of the American Wood Preservers Association, the scary-looking arsenic figures from Florida are at least partly a function of the state's low "background level" of naturally occurring arsenic.

"Arsenic is the 20th most common element in the earth's crust," he says. "The national average for arsenic in soil is 5 parts per million." That being so, he contends, Florida's residential guidance standard of 0.8 ppm is misleading. "You can have a soil test that shows six times the level the state considers safe and still be well below what you'd find naturally in most of the country."

**Arsenic-free alternatives.** But Ramminger concedes that once consumers come to regard a product as unsafe, it can be almost impossible to convince them otherwise. "If people want alternatives to CCA-treated wood, our guys will sell it to them," he says.

One low-toxicity chemical used by a growing number of treatment companies is alkaline copper quat, or ACQ, produced by Chemical Specialties of Charlotte, N.C. The resistance of ACQ-treated wood to insects and decay is comparable to that of CCA-treated wood. And although the arsenic-free wood typically costs about 10% more, Chemical Specialties' Vice President Dave Fowlie believes that the price difference doesn't matter to safety-conscious consumers. "The real barrier is that a lot of retailers see treated lumber as a commodity and are reluctant to carry a higher-priced product," he says.



**Although the wood-treatment industry insists that CCA-treated lumber is perfectly safe, growing concern on the part of consumers — and the looming threat of new EPA restrictions — may herald a shift toward less toxic and more expensive treatment methods.**

A second low-toxicity preservative process — which went into commercial production at the beginning of this year — is treatment with copper azole, produced by Arch Wood Protection of Smyrna, Ga. Wood treated with copper azole is comparable to ACQ-treated wood in both price and durability.

**Industry hedges its bets.** No one expects CCA-treated lumber to disappear completely anytime soon, but its long-term prospects are uncertain. The EPA is now conducting a regular safety review of CCA — a review last performed in the mid-1980s — and may well issue new use restrictions when it issues its report in 2003.

If that happens, Chemical Specialties and Arch, which both also manufacture CCA, stand ready to close the gap with their arsenic-free preservatives. "We think that CCA still has a long and prosperous life ahead of it," says Arch spokesman Huck DeVenzio. "But if people don't want to use it or aren't permitted to use it, we can provide the product they need."

**OFFCUTS**

**The market for plywood sheathing continues to shrink**, according to *Random Lengths* newsletter. The newsletter cites a projection by the APA that the capacity for plywood production in North America will shrink from 20.7 billion square feet in 2000 to 18.0 billion in 2006. "Plywood's remaining construction market share is largely due to personal preferences of builders and architects," writes *Random Lengths*. "That preference ... is expected to dwindle as a generation retires and OSB makers continue to improve the water-resistance of their panels."

**The increase in spec houses selling for \$1 million and up is spawning a new vocabulary**, according to a recent article in the *New Yorker*. With the spread of "tract-mansion development," says the magazine, California is producing a bumper crop of look-alike homes with two-story "lawyer foyers" and four-bay snouts dubbed "garage mahals."

**Circuit-breaker theft has become a major problem for home-repair contractors in Sacramento**, according to a report in the *Sacramento Bee*. An active black market in Zinsco main breakers means that they are regularly stolen from unoccupied houses. Contractors beginning a renovation project must then pay for a replacement breaker, apply for new meter service, and wait for the local utility to turn the power back on. "It's a pain in the butt," one contractor was quoted as saying. "It ends up being a \$600 or \$700 deal every time."

**Gypsum wallboard may provide an ideal breeding ground for toxic mold**, according to a Nevada doctor who testified at a California senate hearing on the subject in March. Another star witness was the real-life Erin Brockovich — the activist portrayed by Julia Roberts in the recent movie of the same name — who reported a range of health problems she blamed on a mold-contaminated house she and her family moved into in 1997.

## House of Steel Gives Germs No Quarter

With germ-conscious Americans buying ever-increasing quantities of germicidal hand soap and aerosol disinfectants, an Ohio company may have found a way to offer anxious consumers the last word in hygiene: an antimicrobial house.

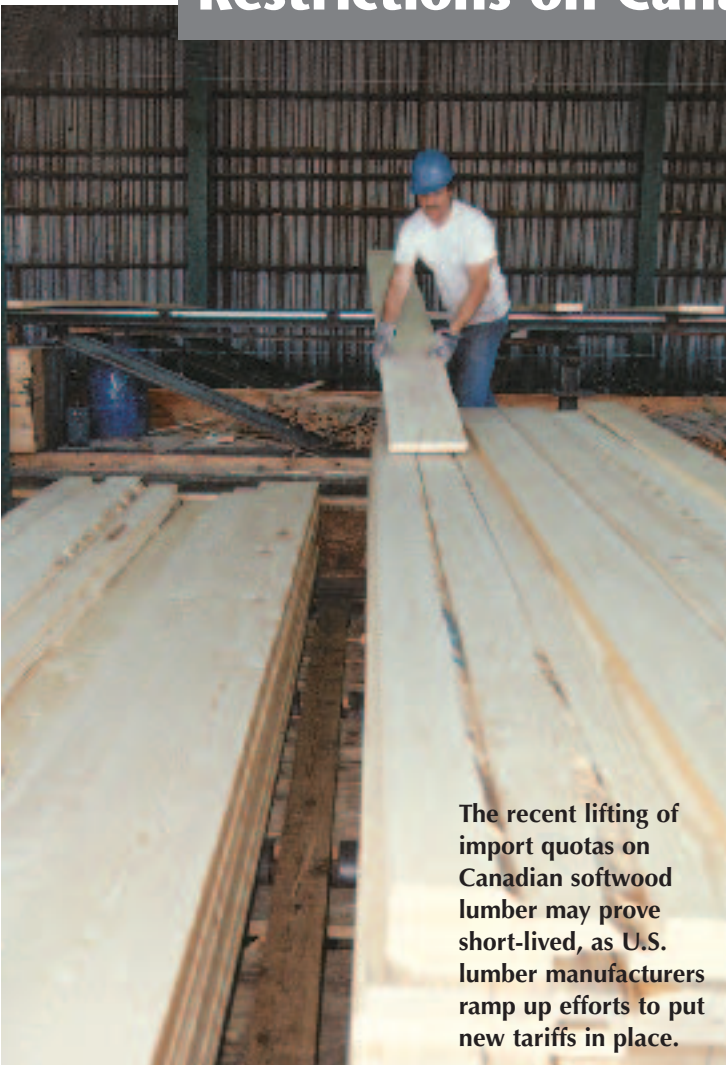
The 11,000-square-foot concept home outside of Los Angeles will be built by AK Steel of Middletown, Ohio, as a showcase for its products, and will incorporate a variety of more or less familiar steel building materials such as steel framing and stainless steel roofing. But the ductwork and frequently handled interior surfaces — including handrails, doorknobs, faucets, and food-preparation surfaces — will feature a patented silver-bearing coating that is said to inhibit the growth of bacteria, mold, and other microorganisms.



According to AK Steel spokesman Alan McCoy, the antimicrobial coating is about as durable as high-quality automotive paint. "Our company has an exclusive North American license for the coating," McCoy says. "Our research shows that germs are a very high concern. We think it's a market with great potential."

But even in an antimicrobial house, it will still be necessary to wipe off the counter now and then. The company's Web site includes a fine-print disclaimer that's apparently meant to head off complaints from sloppy housekeepers: "The AgION antimicrobial coating is not intended as a substitute for good hygiene. Coated products must still be cleaned to ensure the surfaces will be free of harmful microbes."

## Restrictions on Canadian Lumber Imports Expire



The recent lifting of import quotas on Canadian softwood lumber may prove short-lived, as U.S. lumber manufacturers ramp up efforts to put new tariffs in place.

STEPHEN JOLLEY

The five-year-old Softwood Lumber Agreement — which imposed duties on Canadian lumber imported into the United States — expired at the end of March, meeting with very different reactions from two sectors of U.S. industry.

Most builders' organizations hailed the end of the agreement, which means that low-priced Canadian lumber can now flow across the border without restriction. The NAHB had maintained that duties on Canadian lumber added about \$1,000 to the price of a typical new home, pricing many buyers out of the market. In effect, the organization contended, the agreement subsidized U.S. lumber companies and large landowners at the expense of home buyers.

Lumber producers, however, accused the Canadians of dumping subsidized lumber on the U.S. market. With domestic lumber prices already at their lowest level in years, they say, cheaper Canadian imports will be a deathblow for many U.S. lumber mills already near bankruptcy.

In any case, unrestricted trade in Canadian lumber is likely to be short-lived. Within days of the expiration of the old agreement, a coalition of U.S. timber companies and mills filed formal complaints against Canada, seeking a 40% tariff penalty to counteract the alleged Canadian subsidies. And while it may take years for the threatened trade war to play itself out, its most important short-term effect — from the builder's standpoint, at least — will probably be its effect on the price of framing lumber, which is likely to grow increasingly unpredictable.

"When this sort of thing happens, there's a tendency to try to out-guess the system and overreact," says NAHB economist Michael Carliner. "The uncertainty of the next few months is going to add volatility to what is already a very volatile timber market."

## Masonite Drops Hardboard Siding

A rash of class-action lawsuits against manufacturers of hardboard siding has saddled the material with a reputation for buckling, swelling, and other moisture-induced problems. Those chickens now appear to be coming home to roost. Citing a 40% decline in hardboard's overall market share in the past five years, the Masonite Corporation has stopped production of all hardboard siding products. The decision has resulted in the shutdown of two production lines at a mill in Laurel, Miss. — where Masonite has manufactured siding since the 1950s — and the permanent closing of a Ukiah, Calif., mill.

Where are all those former hardboard users going? University of Massachusetts at Amherst building scientist

Paul Fisetto speculates that many of them have switched to cementitious materials such as fiber-cement. "They look about the same, and they're comparable in price," he says. "But fiber-cement is much more weather-resistant, so you don't have to protect it with a big overhang."

American Hardboard Association spokesman Curt Peterson regards vinyl as hardboard's strongest competitor. "People like the fact that it's prefinished and that they never have to paint," he admits. But despite declining sales growing skepticism on the part of builders and consumers, Peterson remains optimistic about hardboard's future prospects. "It's inexpensive, and it's a primed product," he says. "It has a proven track record."

OFFCUTS

**Builders in the city of Limerick, Ireland, have constructed a replica slum home as a tourist attraction,** according to a report in *The Irish Times*. The home commemorates Frank McCourt's best-selling memoir *Angela's Ashes*, which details the author's childhood in a desperately poor city neighborhood. The replica home contains period furniture and an artificial puddle on the floor.

**Specialty building products manufacturer W.R. Grace has filed for Chapter 11 bankruptcy,** becoming the fifth major U.S. company to do so in the face of asbestos liability since the beginning of last year. Grace has so far paid out \$1.9 billion to manage and settle more than 325,000 personal-injury claims related to asbestos formerly added to fire-protection products. The company has said that it will continue its normal operations while it develops a plan to handle the outstanding claims.

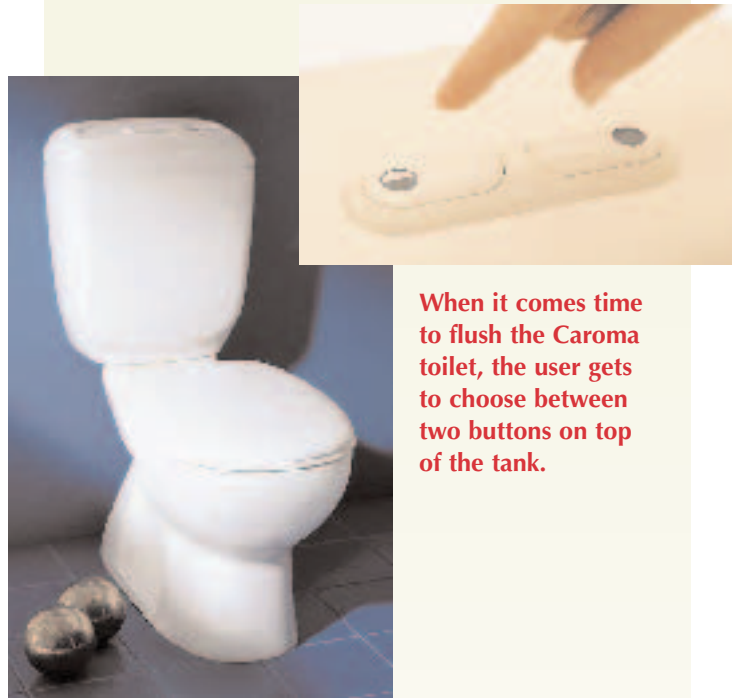
**An Ohio construction company has sued an excavator for \$500,000 over a practical joke gone bad.** The suit alleges that employees of Excavating Unlimited dug a disguised trench across a path used by another equipment operator at a Columbus-area housing development and watched as the 44-ton earth-scraper toppled in. The driver was thrown against the roof of his machine and suffered multiple compression fractures of the spine and has been unable to work since. Lawyers for the plaintiff are working on a suitable punch line.

**1.2 million new single-family homes will be needed annually for the next 10 years,** according to a long-term housing forecast recently released by the NAHB. The forecast, "The Next Decade in Housing," also projects the need for 343,000 multifamily starts and 276,000 mobile home shipments during the period.

**Geologists in Seattle are using toppled chimneys for seismic mapping,** according to the *New York Times*. Because brick chimneys are typically the first structures to fail during a quake, the researchers are cruising residential neighborhoods of West Seattle and recording the locations of chimneys that toppled during February's earthquake. A distinctive east-west band of fallen chimneys is thought to mark the location of a concealed fault that didn't move during the recent event, but apparently focused and intensified the shaking.

## Big Flush, Little Flush

The old water-saving mantra was, "If it's yellow, let it mellow." Now builders can offer their customers a better way to handle liquid waste than letting it sit there. An Australian manufacturer, Caroma (Caroma USA, P.O. Box 3817, Long Beach, CA 90803; 562/439-9224; www.caromausa.com), is selling a toilet with two flushing options — the now-standard 1.6-gallon flush and a more miserly 0.8-gallon flush for liquid waste. The flushing options are controlled by two buttons located on top of the tank.



When it comes time to flush the Caroma toilet, the user gets to choose between two buttons on top of the tank.

"The toilet uses readily available technology," says Steve Sanders, office manager at Decorative Plumbing Distributors, a plumbing supply house in Union City, Calif. "The flush valve is a standard Fluidmaster. For the smaller flush, the button doesn't pull the plunger as high. It pulls it just high enough to allow a 0.8-gallon flush."

Wisely, the toilet designers avoided the pitfalls associated with labeling the two buttons. Instead of labels, the buttons are marked with two symbols — a full moon for the big flush, and a half moon for the little flush.

