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## Group Self-Insurance Saves Millions on Workers Comp

by John Wagner

Contractors burned up about the cost of workers comp may find help on the horizon in the form of group self-insurance. Successful

WARREN GEBERT

programs started during the '80s are inspiring imitation by private insurance companies and agencies in a growing number of states. In

1993, California became the 37th state to allow group self-insurance in the construction industry.

In a group selfinsurance program, companies of a particular trade, such as building contractors or restaurant chains, band together under the umbrella of a corporate insurance provider. By restricting their responsibility to the losses of their select group, co-ops can return to their members the benefits of safety gains and administrative savings.

Success story. The Building Industry Association of Washington (BIAW) has run a group self-insurance program for workers comp since 1981 through the state's Labor and Industry department. With 2,200 members, the BIAW program's growth and success stand as an example to the industry. It has paid regular rebates, saved

contractors millions in premiums, and improved members' overall safety records through strict safety standards tied to rebate incentives.

BIAW started its program 14 years ago in response to a worsening crisis for construction employers in the state. "Workers comp rates were skyrocketing," explains Tom McCabe, BIAW's vice-president. "We badly needed a break. Plus the state's rising administrative costs were being passed on to us."

Under a new state law, BIAW offered an economical continued

# Production Builder Boosts Sales With Solar Options

Passive solar construction has fallen out of sight in recent years, pegged as a luxury-market fad that's no longer trendy. But according to Reno builder Paul Neuffer, solar deserves a second look. For Neuffer Construction, including inexpensive solar features on some models is a marketing strategy that pays off in sales.

Three of the four model homes Neuffer Construction offers to buyers include some passive solar features, such as more south-facing glass, tile floors, and a half-height "glare wall" to keep winter sun out of living areas.

Although the solar models have accounted for a quarter of all his sales in the past decade, and nearly half in recent years, Neuffer doesn't advertise the homes as solar. His surveys indicate that buyers who choose the solar models like them because they are "bright" or "open and airy."

They're also economical. Neuffer says it's no accident that the smallest and least expensive home, the Model 1300/1400, is also the "most solar" (model numbers correspond roughly with floor continued

DONALD ATKEN

The sunny entryway of this moderately priced home is a solar option that sells.

#### STATE BY STATE

#### Rhode Island.

Contractors with fewer than three employees will not have to carry workers comp after all. The Labor Department has decided to rescind the new requirement, at least for now. But general contractors will still be held responsible for covering uninsured subs on their sites.

Massachusetts. Hoping to encourage building on vacant urban properties rather than in suburban or rural areas, the state is offering to protect developers from some environmental lawsuits if they build on contaminated property. Under the Covenant Not to Sue, the developers would agree to clean up the property, and the state would agree not to target them in any future suits relating to past spills or dumping there.

**New York.** The Army Corps of Engineers is considering a general permit that would apply to many projects that impact on waterways in the state. If the proposed State Program General Permit (SPGP) is approved, a permit from the state Department of Environmental Conservation (DEC) would also satisfy some Federal permit requirements, cutting down on duplicate paperwork and delays but maintaining environmental standards. For information, call DEC at 800/332-2922.

#### **Engineered Wood Group Pushes Standard I-Joist Code**

Graded sawn lumber is a standard item, no matter who supplies it. But I-joists behave a little differently, so a builder cannot just substitute an I-joist for each sawn stick in a framing plan.

APA — The Engineered Wood Association wants to simplify I-joist framing by creating a common standard for the engineered members.

Existing APA testing and rating procedures for plywood



A uniform spec for I-joists would eliminate differences that make it hard to order and use engineered lumber.

To complicate things further, minor variations between brands make each manufacturer's I-joist unique. This makes it tougher for builders and code officials to be sure the material is being used correctly. So

and OSB allow builders to treat APA-rated panels as a generic product. APA executive Tom Williamson believes a similar approach to I-joists would make them more popular. "We keep hearing the same thing from suppliers and builders: If you want this product to take off, come up with a standard that will make it easy to use."

APA's first task is to get member companies to agree on standard specs for I-joist sizes and span ratings. Williamson hopes to finish that process within a year. Then, APA would seek uniform code approval for I-joists based on APA ratings. Once testing procedures are set up at member mills, the plan is for APA-rated I-joists to carry a stamp like the one found today on APA-rated plywood.

One unknown in this scenario is how Trus Joist MacMillan would figure into the picture. Trus Joist, the company that invented the I-joist and controls around half the I-joist market, is not an APA member. □

### R-75 Per Inch Insulating Panels Enter the Market

A new insulating panel now being manufactured by Owens-Corning has a center-of-panel R-value of 75 per inch. The panels, which the company has named AURA, achieve this remarkable performance with the help of a secret ingredient: nothing. AURA panels are the first commercial application of vacuum insulation technology, which relies on empty space to block the transfer of heat.

Conventional insulation materials like fiberglass, cellulose, and foam rely on trapped air and other gases, which conduct heat slowly. But those materials cannot reach R-values much above the insulating value of still air

(about 3.5 per inch).

A perfect vacuum, on the other hand, blocks heat conduction completely. AURA panels contain a partial vacuum sealed inside a stainless steel skin. A rigid fiberglass matrix inside the panel keeps the skin from collapsing.

Like high-R windows, the panels conduct more heat at the edges than they do at the center. But system performance is still impressive: A 5-sq.-ft. panel is rated at over R-35 per inch, edges included.

The AURA panels are slated to be included in Whirlpool's new 22-cu.-ft. super-efficient refrigerator, which exceeds Department of Energy efficiency standards



New super-insulating vacuum panels make this solar-powered ice cream cart feasible.

by 40%. Owens-Corning is working with other refrigerator manufacturers as well, but there is no word so far about when vacuum insulation panels might be available for building construction — or at what cost.  $\square$ 

### Canadian Inventor Tackles Lead Paint Problem

Federal and state rules controlling the removal of lead paint during remodeling projects are continuing to tighten. Dismayed painters say many legitimate contractors will start walking away from any leadpaint situation, abandoning the field to fly-by-night operators who don't bother to follow rules or carry insurance.

Canadian inventor Marc Janusz may have found a way to reverse this trend. With encouragement from his government, Janusz has developed a machine that can safely and



economically remove built-up leaded paint from old moldings and walls. A test sponsored by Canada Mortgage and Housing Corporation (CMHC) indicates that Janusz's Ecostrip device effectively removes leaded paint from wood surfaces, while maintaining very low airborne lead concentrations and no measurable contamination of floor surfaces. A CMHC source said the Ecostrip system's performance apparently would satisfy even tough U.S. rules.

Ecostrip is similar in concept to a sandblaster: It uses abrasive media carried on a

current of air. However, the system operates at a much lower air pressure than conventional sandblasters, and the quantity and type of abrasive material are carefully adjusted and controlled. As a result, the system removes paint without damaging the underlying wood. The abrasive media and leaded paint dust are captured by an attached HEPA vacuum and collected in a bag for easy disposal.

Inventor Janusz developed his prototype machine for use in his furniture-stripping



The Ecostrip paint-removing system produced virtually no contamination in tests sponsored by the Canadian government.

business, where lead paint disposal is a major cost. His prototype machines are selfcontained units, but he says he is now developing a version that would attach to standard sandblasting equipment.

Janusz's business is a small operation, and this is his first crack at developing construction equipment. It is not clear how or when his invention will reach the mass market.

For more information, contact Ecostrip, 143 Old River Rd., RR 2, Mallorytown, ON K0E IRO, Canada; 613/923-5265. □

#### FROM WHAT WE GATHER

Look for a bad hurricane season this year, says William Gray, professor of atmospheric science at Colorado State University. Higher than average rainfall in Africa and

cool water conditions in the equatorial Pacific have created conditions that foster the huge storms, Gray reports. He predicts that there will be 8 hurricanes and 12 major tropical storms

this year.



Construction is a dangerous trade. The latest Bureau of Labor Statistics figures say that of all the country's workers, construction workers suffered the highest rate of nonfatal occupational injuries and illnesses in 1993. More than 12 out of every 100 construction workers were hurt or got sick from working that year, compared with a national average for all industries of 8.5 per 100.

Heat pumps are a reliable technology, according to Solplan Review. The newsletter reports that back in the 1960s a Norwegian contractor needed 12 employees to service 1,200 oil boilers. Today, one employee for the same company handles the service and maintenance of 1,500 heat pumps.

Your worst nightmare is here: termites that eat concrete. That's if we can believe reports in the China Daily. The paper reportedly says termites in Changdu, capital of the western Chinese province of Sichuan, have developed the ability to chew through concrete and damage copper, iron, and aluminum. (Half an hour later, however, they're hungry again.)

There's a new breed of outlaw: freon smugglers. The Environmental Protection Agency (EPA) has outlawed some types of refrigerants, and they're no longer being produced in the U.S. But they can still be obtained on the international black market, sometimes falsely labeled as a recycled product that is still allowed. Federal agents from the EPA, Customs, and the IRS are on the lookout for bootleggers. They warn that a contractor who buys from a questionable source could be charged as a co-conspirator in a tax fraud or smuggling case.

Builders pay an average \$511 per house to get rid of scrap, according to November's Builder magazine. Regionally, waste removal costs per house range from a low of \$441 in the Midwest to \$583 in the South. But 14% of builders pay more than \$1,000 per house.

# Super-Sensitive CO Detectors Alarm Chicago

Sales of carbon monoxide (CO) detectors have been booming in Chicago since the city passed an ordinance last October requiring the devices in all residences. First Alert alarms became Chicagoans' preferred brand because of their high sensitivity to very small quantities of the poisonous gas.

In December, though, the devices' sensitivity became a liability when weather conditions trapped pollution near the earth, slightly raising atmospheric CO levels throughout the city. In one exhausting 24-hour period, emergency crews responded to 1,852 calls from city residents whose alarms had gone off because of the high background levels of CO. Most of the false alarms reportedly came from the ultrasensitive First Alert devices.

In the wake of the false alarm fiasco, First Alert offered refunds to unsatisfied customers, and Chicago temporarily suspended its ordinance. But news reports



This high-end CO alarm from Telaire Systems features an adjustable threshold level and a visual readout.

also credited a CO alarm with saving a family of nine from probable asphyxiation by a malfunctioning furnace. Others pointed out that chronic exposure to low levels of CO can threaten the health of unborn babies, infants, the infirm, and the elderly. City officials and manufacturers are still puzzling over how to protect the public while avoiding false alarms.  $\square$ 

#### Solar Options,

continued area). The design includes floor-to-ceiling windows along the entire south wall, a tile floor that sits on top of a compacted-earth heat sink, and a thick masonry glare wall that adds thermal mass. All these details add around \$1,500, or about 1%, to the building's construction cost. Neuffer believes that the Model 1300/1400's lower fuel bills are an added attraction to buyers who can't afford a big house and are worried about qualifying for a mortgage. He estimates that customers save around

\$200 annually on their heating bills, meaning a sevento eight-year payback for the solar construction costs — and he says they also get a more comfortable and livable house.

Neuffer claims there's a benefit to the local utility for reduced energy consumption: "Sierra Pacific could rebate \$500 to the solar home buyer and another \$500 to the builder, and all players could come out even or ahead."

For information, contact Neuffer Construction, 980 Caughlin Crossing, Suite 103, Reno, NV 89509. □ Group Self-Insurance,

continued alternative. A company whose premiums exceeded its losses for the previous three years (allowances are made for young companies) could enter the program for a \$100 fee or 1% of a company's premium, whichever is higher.

At the end of each year, if the group's premiums exceed its overall losses, the difference is proportionally rebated to member companies. In 1993, BIAW paid its twelfth consecutive rebate: a record \$11.7 million paid out to 1,807 companies, on a premium base of \$60 million. But individual companies whose losses exceed their premiums don't share in the rebate, and they are dropped from the program until they show

until they show improvement.

The program is inherently self-policing, though BIAW safety inspectors visit job sites. BIAW also provides claims management, safety monitoring, and return-to-work programs.

Success breeds imitation. BIAW's success has served as a model to private insurance companies. The Travelers Insurance, based in Hartford, Conn., is one example: The Travelers now offers a fully developed turn-key group self-insurance package, customized for different industries. The Travelers currently sponsors 12 construction groups, and expects growth in this area in 1995. However, The Travelers is targeting big employers: "We're interested in groups of a minimum of ten companies, with a premium base of a million dollars," explains Marc Parven, director of national marketing for

Travelers' commercial line.

Participants in any of these programs shouldn't expect instant rebates, warns Parven. "With group self-insurance, we are looking for a multi-year commitment," he says, "and some state laws are designed to encourage this." In Massachusetts, for instance, insurers have to hold any returns for three years, though accrued interest on the escrowed funds is eventually distributed along with other refunds.

Obstacles and opportunities. Some states still don't allow self-insurance for workers comp. And even where self-insurance is an option, starting or joining such a group is tougher for small companies than for big ones.

Remodelers

stand to

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Still, as self-insurance groups proliferate, finding one like BIAW's that will accept small companies will become easier. Remodelers in particular stand to benefit from having their premiums reflect their loss records.

Under conventional plans, a company that specializes in kitchen remodels, for instance, pays comp premiums for its carpenters that reflect the accident rates experienced by carpenters framing on tract developments, even though the remodeling company's work is less risky. As the selfinsurance movement expands, contractors stuck in such catch-22's may at last find a market-driven mechanism for reducing stubbornly high workers comp costs. □

John Wagner is a frequent contributor to the Journal of Light Construction.