

Improving Deck Safety

Dealers can save lives and prevent accidents while expanding their sales by encouraging customers to refurbish the millions of unsafe decks nationwide.

By Craig A. Shutt

Building material dealers looking to expand their deck sales can accomplish that goal while helping customers avoid future problems and even prevent injuries. By encouraging consumers to have their decks inspected and having contractors suggest an inspection during other work, dealers can tap into a large inventory of decks that need to be repaired or brought up to adequate structural-integrity levels.

“Our number-one priority to the public is to ensure that the decks they and their families enjoy are safe,” says Mike Beaudry, executive vice president of the North American Deck & Railing

Association in Quakertown, Pa. To bring awareness to this issue, NADRA has created campaigns and educational programs for builders, lumberyards and manufacturers aimed at upgrading deficient decks to ensure they are safe.

The biggest concern is deck collapse and railing failures, he notes. These failures occur for a variety of reasons, especially due to old age, poor maintenance, improper building methods or exceeding load capacity. Heavy snow loads during the winter in northern regions can weaken the deck, necessitating an inspection in the spring before high levels of activity return.

Large Inventory of Older Decks

Older decks especially need scrutiny, he says. “Many were built before code requirements were in place to protect consumers. Some of these decks may have deck-to-house attachments using only nails. Others have become weakened through the years, and the owners don’t realize how close to collapse they may be.”

The number of deck failures and resulting injuries has been increasing, he adds. Between 2000 and 2008, there were at least 30 deaths reported as a direct result of deck collapses. In addition, more than 75% of the people on a deck when it collapses are injured or killed. *(See chart next page.)*



Snow loads can be a cause of deck collapse even with no people using them, underscoring the need to inspect a deck each spring for structural integrity.



When deck ledgers are not flashed properly, they can cause the deck to separate from the house when the supporting structure corrodes.

“Deck failures can be avoided,” he says. “It’s a matter of making the consumer aware of the necessity of choosing a professional deck contractor, providing regular maintenance and inspection and knowing the limits of the deck structure.”

The problems will continue to grow, he notes, as there are more than 40 million decks in the country that are more than 20 years old. “That represents a tremendous opportunity for dealers,” he points out. “By making homeowners and businesses aware of the need to have their decks and porches repaired, we help prevent or reduce these needless injuries and deaths. While we do, we can tap into the large market that is

the inventory of decks that need to be repaired or replaced.”

Inspection Forms Available

NADRA has begun building relationships to include reciprocal agreements with the three major inspection associations, the American Society of Home Inspectors (ASHI), the National Association of Certified Home Inspectors (NACHI) and its international branch (INTER NACHI), which have more than 25,000 home inspectors. The inspectors use a four-page deck-inspection form created by NADRA to ensure every part of the deck is reviewed. ➡

Annual National Estimates of Injuries from a Deck or Wood Porch

These figures represent the estimated number of people with injuries who went to the hospital emergency room due to falling off or becoming injured. The totals do not include slipping on wet surfaces, splinters, falls or other minor incidents, including those related to drugs or alcohol. Approximately 15% of the totals result from structural failings overall.

	Deck/Porch	Railing	Stairs	Total
2003	29,400	4,880	3,480	37,760
2004	37,720	5,520	3,120	46,360
2005	31,160	4,680	3,680	39,520
2006	36,640	5,440	3,860	45,940
2007	43,880	6,120	5,160	55,160

Source: National Electronic Injury Surveillance System of the Consumer Product Safety Commission, as compiled by Legacy Services LLC, 2010

Injuries from deterioration of wood decks and porches has continued to rise, indicating a strong market for deck repairs that dealers can encourage with awareness programs and checklists available from NADRA.



NADRA's Deck Safety Program

An effort to save lives and prevent injuries!

The number of deck failures and resulting injuries has been increasing at an alarming rate. Between 2000 and 2008, there were at least 30 deaths reported as a direct result of deck collapses, and more than 75 percent of people on a deck when it collapses are injured or killed. With 40 million decks in the United States that are more than 20 years old, it's important for homeowners to check their deck.

The North American Deck and Railing Association is dedicated to increasing public awareness of the necessity for regular inspection and maintenance of existing decks and proper installation of new decks. NADRA encourages you to take the following steps to help spread the word!

You can make a difference! See how:

1. Go to www.NADRA.org
2. Click on “Deck Safety” on the left hand side of the homepage
3. Download & print the Deck Inspection Checklist
4. Distribute this list to all the builders and industry pros you know!
5. Start making a difference!

Michael Beaudry, executive vice president of NADRA states, “Our number one priority to the public is to ensure that the decks they and their families enjoy are safe. NADRA takes this responsibility seriously and has created campaigns and educational programs for the builders, distributors, lumberyards, and manufacturers to improve proper installation practices along with checklists and safety awareness information for customers to follow.”



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ISSUES & OPPORTUNITIES

The inspection form includes eight key areas: ledger connections, posts and footings, post-to-beam connections, joists and joist connections, stairs, deck boards, handrail assemblies and guards and miscellaneous. Each section asks key questions about structural supports and connections, such as post sizes, fastener types and specific design aspects as well as any visible indications of corrosion or weakness.

Hints for what to look for and what is not allowed also are provided.

The checklist provides homeowners with guidelines for what areas need to be repaired, and they or the contractor can show this report to a dealer to get the materials needed to restore its condition.

The group also offers a separate one-page Consumer Checklist that lists 10 key signs that the homeowner's deck needs

attention. The 10 key areas outlined are split or decaying wood, flashing, loose or corroded fasteners, railings and banisters, stairs, cleaning and maintenance, grills/firepits/chimneys/heaters/candles, lighting and electrical, outdoor furniture and storage, and surrounding trees.

Both forms can be downloaded at the organization's site (www.nadra.org) and can be distributed to homeowners and contractors who come into the store. "If dealers can put these pieces into the hands of contractors who are in the home performing work already, there's a great chance they can make homeowners aware of the need to examine their deck and upgrade it."

In addition, researchers at Virginia Tech University, in cooperation with the International Code Council have produced a "Manual for Inspection of Residential Wood Decks and Balconies." The manual, intended for use by home inspectors, renovation contractors, consulting engineers, homebuilders and building-code officials, includes inspection-planning needs, what to look for, structural calculations and formats for reports.

Says Frank Woeste, a deck-safety expert at Virginia Tech who helped develop the inspection manual, "I'm aware of deck collapses when no one is on them, demonstrating the need for homeowners to determine their deck's structural integrity." The manual can be ordered from the NADRA Web page.

Encouraging homeowners and contractors to be aware of deck deficiencies can help prevent accidents and boost dealers' sales at the same time, notes Beaudry.

"By doing the right thing, we begin to tap into the large inventory of existing decks that need our products and services, doubling or tripling the number of deck projects in a year while also protecting homeowners from harm. Together, we can reach out and make a difference." ■

Craig A. Shutt, a senior contributing editor of *LBM Journal*, has nearly 30 years of experience covering the LBM industry.

Deck for a Soldier

Army Staff Sergeant Marshall Diaz is the recipient of a new deck for his home, thanks to Deck for a Soldier, a program conducted by the North American Deck & Railing Association each year to build a new deck for a soldier using donated materials and labor.

Diaz, from Lacey, Wash., was selected from numerous candidates and had his deck built by Western Washington NADRA members. Diaz has served in the Army for 13 years and is currently on active duty in the Warrior Transition Battalion at Joint Base Lewis-McChord. During his last deployment to Afghanistan, he was wounded and evacuated to the U.S., being awarded a Bronze Star and a Purple Heart.

The 509-square-foot deck features composite deck boards in an Ipe finish, as well

as border, trim and fascia boards in an Acacia finish. A number of deck manufacturers contributed to the project, along with a variety of other suppliers and contractors.

The deck features a canopy outfitted with stereo speakers tied into Diaz's sound system as well as a remote-controlled lighting system. Oak benches, a fountain and a fire pit also were provided.

Contributors to the project include Sunset Air, HighPoint Deck & Landscape Lighting, Interra, Intuitive Integration, Dr. Decks, BHD Construction, Mutual Materials, Screw Products, ProBuild, Azek, Fiberon, Deck Builders, Trex, Parrot Heads of Puget Sound, Deck Scape LLC, High Point Lighting, Chinook Lumber and Home Depot.



The deck built by NADRA members for its Deck for a Soldier program includes a fire pit, fountain, oak benches, stereo system and remote-controlled lighting.