# Getting Practical About Job Site Safety

## Preventing serious accidents starts right at the top of your organization

**by Michael Davis**

As most of us know from personal experience, construction is dangerous work. That means some of the people who work for you are going to get hurt sooner or later. But how often and how badly they're injured isn't just a matter of luck; you can strongly influence the outcome by taking a realistic and consistent approach toward on-site safety.

### A Few Sobering Facts

If someone gets hurt on one of your job sites because of a hazard you could have corrected, it's defined as negligence, and it can cost you everything you have in a legal judgment. If someone is killed on your job and it's defined as criminal negligence, OSHA will do everything within its considerable power to see that you go to jail for up to 18 months and pay fines up to $50,000. And it doesn't matter that you weren't there. Someone has to be held responsible, and most states protect site foremen from prosecution.

Think it can't happen to you? Try these numbers on for size. An employee sustains an on-the-job injury every 18 seconds in this country, and a workman is killed every 47 minutes. The most dangerous profession according to OSHA statistics? Construction.

But don't think you can just drive out to the job tomorrow morning and tell your foreman that you want a safe site and expect it to happen. No one cares as much about your business as you do. You've got to set the tone, spell out the standards you want enforced, and keep hammering at it.

The trick is to find that fine line between what you can do to make your job safer, and what you have to do to get the job done. You've got to tailor your safety program to fit your jobs and your people, or it won't be taken seriously at the level where it counts.

I put my greatest safety efforts into four major areas: hiring, training, drug and alcohol policies, and equipment.

### Safe Hiring

Statistics tell us 5% of all accidents are caused by unsafe conditions; the other 95% are caused by unsafe actions. That means that you can go out to your job and hang up nets, install big red warning signs, even pad the walls, and unsafe workers will still find a way to hurt themselves.

The first step toward changing this is extensive applicant screening, something most big companies do. You start by checking the employment references of all candidates. Then you ask about preexisting injuries and handicaps, and run them through a physical and a drug screen. This process costs a few hundred dollars per applicant and takes about a week.

Good advice? You bet, but it's not realistic for most small contractors. We've tried to find a happy medium. We used to stand there and shoot the breeze with anybody who wandered on site with nailbags looking for the foreman, which often resulted in our hiring the guys whose best skills were talking, not working. Now we use a three-page, preemployment screening packet we've developed.

The first page tells them a little about our company and what we have to offer. It starts out, "We're about to ask a bunch of questions about you. So we figure that it's only fair that we answer some of the questions that you might have about us." It gives them an overview of our policies, tells when payday is, and that sort of thing.

The next sheet is my pride and joy. It's a simple, 15-question quiz that we've worked up on framing. The first few questions are on materials: "How big is a 2x4?" etc. Getting these right qualifies you as a board hauler. Then the questions get into rough openings and stud heights. If you get that far, you might make a decent nail beater. From there it goes into layout, stairs, and rafter cutting. This form has saved us a ton of money by weeding out dummies.

The third and final sheet of our "hello" packet is a medical history questionnaire. It asks simple questions like, "Have you ever been injured on a job site?" and "Is there any medical reason you can't perform the job you're applying for?" If the applicant has a bad back, he's required to tell you. If he's been hurt on every job he's worked, then you know there's a pretty good chance he'd get hurt on your job, too.

### Training

Every new employee should go through an orientation that includes a tour of the site, an introduction to the crew, and most importantly, a review of what safety practices and equipment are expected. You may lose a few guys by insisting on this stuff — the really cool ones that would rather die than conform — but you will cut down on the most common accidents like foot and eye injuries, and saw cuts.

Never just assume that a new employee knows how to operate your equipment. You may feel a little embarrassed telling an experienced framer how to use a nail gun or operate a radial-arm saw, but there are lots of different ways of working, and many of them aren't safe. (For more specifics on what we preach about tools, see *Straight Talk About Safe Tool Use*.)

And to really cover your butt, you should provide every employee with a written copy of your company's safety policies. Then you have them sign a document stating they have read it, understand it, and agree to follow the procedures it outlines. We're still working on this phase; our last attempt ended up looking like the yellow pages for some major city.

### Drugs and Alcohol

Everyone who gets a paycheck from us understands we will not tolerate drugs or alcohol on our job sites. Although we can't afford to use testing as part of the hiring process, our application requires anyone who works for us to submit to a drug test if he is involved in an accident.

*Davis warns his framers to release the nail-gun trigger between shots. In the past, one framer shattered a finger by "bounce nailing." Another had to have a 16d nail surgically removed from the ball of his ankle.*

# Straight Talk About Safe Tool Use

After writing $4,000 checks to your insurance carrier for workers compensation month after month, you get to the point where you see a job site not as a workplace, but as a series of accidents waiting to happen. The three biggest hazards on my sites without question are saws, nail guns, and scaffolding.

Here are the main tool safety tips my crew bosses and I give a guy on his first day and thereafter if he doesn't pay attention.

***Saws.*** I figure the 6-inch scar on my right thigh gives me the right to talk about not getting lax with a power saw. Most carpenters know how to cut safely, but they get in a hurry. We make it clear that nobody gets fired for taking the time to set up a cut.

There are two ways most people get hurt, and both of them involve binding the saw. First, guys will try to rip a 2x4 while holding on to it with their other hand. The saw will bind and kick back, and they'll lose a finger or two. Second, they'll block up a piece of lumber on a saw horse improperly and when they try to cut it, the saw will bind and kick back and bury itself in their leg.

To prevent saw injuries, we make the following recommendations:

- If you're cutting a large board, put a block under it and use your foot to hold it down. If you're cutting a small piece, tack it to a saw horse.
- Unplug the saw before changing blades or fishing for that 1/4-inch slice of fir that wedged itself between the blade and the guard.
- Avoid cutting nails, especially with a carbide-tipped saw blade. The nail head or carbide chunk coming your way will not only be very hot, but traveling at a high rate of speed.
- Always adjust the depth of the blade so it's cutting no more than 1/4 inch deeper than the material. This is easier on the saw and leaves less blade exposed.
- Make sure all saws and power cords are grounded. You don't want to get a jolt in the middle of a cut, and I don't want to have to pay the fine OSHA levies if they happen to drop by and the cords don't pass muster.
- Never operate a power saw unless you're wearing safety glasses. No *ifs*, *ands*, or *buts*.

***Nailers and staplers.*** These tools are great, but they're called "guns" for a reason: Depending on the size of the compressor and how much hose is being used, these tools push between 90 and 120 pounds of pressure. I've seen a sheathing nail that missed its stud tear right through the plywood and bury itself in someone's thigh on the other side. I've also had a guy shatter the bone in his finger when he accidentally shot his hand. Here are some of the rules we have laid down to prevent these kinds of accidents:

- No one operates air equipment until everyone in the immediate area is wearing protective eye glasses.
- Don't even *think* about holding the safety back and shooting nails or staples into the air.
- Aim all air nailers away from you when plugging them into an air hose; they'll sometimes fire a nail when the pressure comes up inside the cylinder.
- Watch out for safeties that stick in the open position, and worn trigger mechanisms that will double fire. I've even had one gun go fully "automatic" on me.
- When nailing studs to a plate, it's important to shoot the bottom nail first, then move your hand back and shoot the upper nail. This way, if the top nail splits the plate or curls out of a knot, you won't take it in your hand.
- Don't keep the trigger depressed. This may sound a little extreme, but some of the worst injuries we've seen have come from ignoring this rule when working in tight quarters or up on a scaffolding. In one case a 16d nail penetrated the skull of a Minnesota carpenter who had the misfortune of coming up a ladder just as his partner — with his finger on the trigger of a gun — was turning to climb down.

This principle also applies to *bounce-nailing* subfloors and roof decks. I know it sounds like a machine gun and it looks really cool. But unless the framer is an exceptional hand with a nail gun his nail spacing will be irregular, he's going to produce a lot of "shiners" (misses), and sooner or later he'll end up injuring himself. I know this is true because I once nailed the third toe of my right foot to the floor with an 8d nail. We also had a guy brush his leg with a nail gun, not realizing he was holding the trigger down at the time. The 16d nail had to be surgically removed from the ball of his ankle.

One of the more bizarre stories about getting careless with a pneumatic tool involves our vice president, Tom Wood. He was stapling off wall sheathing a few years ago. He didn't want to have to drag a sawhorse all the way around the house, so he was jumping up to staple along the top plate, while pushing the sheathing tight to the wall with his other hand. Well, he misjudged his jump once, and he stapled his finger to the top plate. It left him hanging there with his toes barely touching the ground, yelling for someone to come help him down.

***Scaffolding.*** Scaffolding didn't used to worry me, because I kept to two basic rules: Never put an inexperienced man out on a scaffold; and always have the man working on the scaffold build it himself.

A bad accident changed my thinking last year. One of my crew leaders was doing some beam work from a wall scaffold he had built. During the process of "plumbing and lining," the wood scaffold jacks worked loose from the wall. In a hurry, he jumped up on the plank without checking the scaffold. As it gave way, he grabbed at a beam to catch himself, but fell backwards about four feet and landed on a concrete stem wall. The beam struck him full in the face, followed by the scaffold plank. He suffered a severe concussion.

The scaffold issue is a tough one for residential contractors. Spiking some blocks to the wall, nailing triangular jacks to them, and adding a few planks is fast, cheap, and effective. The problem is they will not stand up to the scrutiny of an insurance or OSHA inspection. (OSHA requirements are so strict I don't think I've ever seen a site-built scaffold that would pass). If someone gets hurt on one of these homemade scaffolds, the owner of the business is in a very bad spot.

Our current policy is to use tubular metal scaffolding, but you still have to make sure it's dug in level and securely anchored. And if you're going up more than one section, you must use railings. If you're running siding or sheeting off the scaffold, attach them on the three open sides. If you're working overhead, then close in all four. ■ —*M. D.*

We use our weekly newsletter to underscore what happens to an employee if he's hurt on the job and tests positive for drugs. Here in New Mexico it voids his workers comp coverage. That means the insurance company won't pay his medical and he can't collect disability. We find that this is a great deterrent. Guys who are drug users won't sign the application, and guys who work for us don't use drugs because they don't want to lose their benefits if something happens.

### Safely Equipped

Framers love to work in tennis shoes, shorts, and little else. That was my standard uniform when I worked in the field, and I know a few guys who'd rather be unemployed than wear anything more. But that's just too bad. They aren't paying the insurance premiums and they don't have to pay the bills if they get hurt.

We used to have a terrible problem with people stepping on nails. Somebody would get one in the foot every week or so and it would cost us a hundred bucks each time. Finally one of the guys took a nail in a way that damaged some nerves. It required surgery and cost us a bundle, so now we require boots. We try to be flexible; there are a few manufacturers who make a boot that looks and fits like a sneaker, but has a good hard sole and offers the protection that we're looking for.

Another frequent problem was sawdust in the eyes. Again, this meant hundred dollar trips to the doctor's office just to get the guy's eyes washed out. But in this case we didn't wait for a disaster to occur, such as someone losing an eye to a nail. We now require safety glasses for everyone. We've made a deal with a local safety supply house to buy large quantities of good-looking safety glasses that we provide to the guys at a good price.

Then we come to every renegade framer's pet peeve: blade guards. I've

*Small crews should think through risky operations, like raising this scarf-joined beam, with safety in mind. The crew leader needs to set the tone.*

*On large, multi-story commercial sites, Davis's framers wear hard hats. He requires boots and safety glasses on all his sites to minimize small injuries like nail punctures and sawdust in the eyes.*

heard every argument in the world against them. One of the more convincing ones is that if you use a blade guard on your saw, you get sloppy. You think it's always going to be there and then one day it sticks and you get cut. And there's the argument that you can't make angle cuts or take a quarter inch off a 2x4 with the guard on. These may be legitimate points, but the bottom line is that they are required — by OSHA, by my insurance carrier, and most importantly, by me.

**Making It Work**

A safety program isn't something you can just write up and distribute; it's an ongoing conversation between a contractor, his crew leaders, and the guys on site. We have two primary ways of keeping this conversation going: meetings and a company newsletter (see "Managing a Framing Business," 4/90).

We use "tailgate" safety meetings when we're working a commercial site, especially if we've hired some new people. We try to keep them to 15 minutes, usually right after lunch. The idea is to get everyone thinking about safety. Although you may not have discussed saws in particular, if your guys are thinking safety, maybe they'll hesitate before making that overhead pocket cut from a shaky ladder.

We haven't found "tailgate" lectures as effective for a small residential crew where the same six guys work shoulder-to-shoulder everyday. In this situation, a dangerous move by someone on the crew is going to be met by a crew leader screaming "Don't do that!" loud enough that framers on the next three sites will get the message.

Getting your lead men to take responsibility for safety is a key component. We give out bonuses to the crew leaders if they bring a job in under budget, but the costs of an injury are treated as a direct job cost. If one of our guys brings in a job $1,000 under budget, but he racks up $1,000 in doctor bills because of an injury, then it's a wash and he gets coal in his stocking.

When we do have accidents the crew leaders must fill out and submit a report at the next weekly payroll meeting. All crew leaders are present and we go over the accident in detail. We try to isolate the causes and take steps to prevent another incident. This often means having the crew leaders discuss it with their crew, and writing it up in our newsletter so the guys can also hear it from the "horse's mouth."

Safety is a serious issue. The way I see it, you either develop a workable safety policy that keeps your people healthy and limits your exposure, or you're just wasting your time waiting for bad luck to catch up with you and put you out of business. ■

*Michael Davis employs nearly 50 framers as the owner and president of Framing Square Construction in Albuquerque, N.M. After spending more than a decade as a production framer, he can still count to ten on his fingers.*