

# Building industry faces new fire regulations, green codes

By Jessie Marchesseau

California mandates new building codes every three years. 2011 is one of those years.

Beginning Jan. 1, South Lake Tahoe, Truckee and most of the rest of the state will be implementing some new standards.

“There’s gonna be grumbling with the mandated issues,” said Dave Walker, building official for South Lake Tahoe. “There’s gonna be a learning curve, but our contractors are good. They will adapt.”



Contractor Joe Stewart checks on the boiler at STHS's TADA building that is under construction. Photos/Jessie Marchesseau

Truckee has already hosted classes to bring local building professionals up-to-date on the new codes. South Lake Tahoe plans to offer some after the first of the year, as does the Sierra Green Building Association.

The most notable on this year's list of building code changes are the ones having to do with fire sprinklers and the new California Green Building Standards Code, known as CALGreen.

## **Sprinkler systems**

Fire sprinkler systems in homes are nothing new. They have been required in all new homes over 5,000 square feet since the last building code was implemented three years ago. But the state has decided to expand the code to include all new residential structures, regardless of square footage.

"It should provide for a safer community because sprinklers save lives," said Gareth Harris, fire marshal for Lake Valley Fire Protection District.

According to the National Fire Protection Association, nearly 3,000 U.S. residents die in home fires every year. Harris said not one of those was in a home with functioning sprinklers and smoke alarms.

Contrary to common myths, he said, sprinklers do nowhere near the damage to a home that fire, smoke and water from a fire hose do. They can often detect and extinguish a fire when it is relatively small, and only the sprinkler in close proximity to the actual fire will activate, leaving the rest of the house dry. In fact, the NFPA reports that fire sprinklers reduce the average property loss from a fire by 71 percent.

Even though sprinklers can help significantly reduce property damage from a fire, Harris said the new regulations are "based on saving lives, not saving homes."

For this reason, he is wholeheartedly behind the new regulation, but admits the added cost to building will make it tougher for builders. Contractor Tod Williamson of TW Construction in Meyers is well aware of this. He fears fewer people will want to build homes because of the additional financial burden.

"I don't think it's a good idea to tell you the truth," Williamson said. "I think it's a step in the wrong direction, considering the significant cost to the entire project, and they don't offer significant protection for the money."

Walker from his city office admitted it is definitely going to add to the cost of building. Even though prices have gone down in recent years, a sprinkler system will still add approximately \$15,000 to the cost of building a home.

"The way I see it is anything that they come up with that makes it harder to build makes it harder for me to survive," Williamson said.

Despite the increased cost, not all contractors are against the new regulations. Joe Stewart of SMC Contracting has been installing sprinkler systems in commercial and residential structures for years.

"They are really, really good. Sprinklers save lives," he said. "When you're living in wood houses, wood burns."

He does note, however, that cold temperatures add to the difficulty of installing fire sprinkler systems in the Lake Tahoe area. If water is sitting in the lines, it could freeze, and the pipe could burst.

For this reason, a mix of 50 percent glycerin and 50 percent water is used in the lines. Harris said this glycerin is food-safe and nontoxic, so Tahoe residents do not have to worry about it leaching into the soil or contaminating the lake.

The Tahoe Regional Planning Agency is aware of the new code, but has chosen not to get involved. They do not generally review interior home issues and refer to the Environmental Protection Agency to make decisions on toxic chemicals inside homes.

## **Green building**

Something TRPA does get involved with, however, is the environmental impact of structures and building. In fact, some of the things TRPA has been mandating for years are addressed in the new CALGreen code such as best management practices, or BMPs.

In addition to BMPs and storm water management, the new green building codes demand reduced water consumption, greater energy efficiency, material conservation and improved indoor air quality.

Walker said the air inside homes can be more toxic than the smog in downtown Los Angeles. The new code forces homeowners and contractors to acknowledge the amount of volatile organic compounds, or VOCs, released by building products.

“People are going to have to pay a little more attention to what they put in the interior of their homes because they want better indoor air,” he said.

Walker estimates the CALGreen codes will have less of a financial impact on the building process than the fire sprinkler mandate. But as a contractor, Stewart sees it differently.

“For us as a contractor, that’s going to have a larger impact,” he said. “There will be substantial upfront costs we’re forced to pay.”

Many of these costs will come from the added insulation and energy efficient windows, doors and heating systems. Construction waste management could also potentially add costs for contractors. The new code requires 50 percent of all waste on a construction site be recycled.

However, with a little planning ahead, the waste recycling could end up being one of the least intrusive aspects of the new CALGreen code, at least for local builders. South Tahoe Refuse already offers recycling services to all of its

customers at no extra charge. The company will even track the percentage of waste recycled and provide evidence to the contractor, if they are notified and accounts are properly set up ahead of time.

California is the first state in the nation to mandate green building practices. With local entities such as TRPA and Lahontan Regional Water Quality Control Board already requiring many of these practices, adopting the CALGreen code may be easier for builders in the Lake Tahoe area than elsewhere in California.

“I believe Tahoe is going to feel less of a shock factor,” Stewart said, “simply because we’re already dealing with portions of it simply by building in Tahoe.”

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