## Trouble With Dryer Vents

**Q** Dryer vents always seem to be located right where my clients want their decks. What concerns, if any, should I have in designing around them?

A Glenn Mathewson, a building inspector in Westminster, Colo., responds: The U.S. Consumer Product Safety Commission (cpsc.gov) estimates that in 1998 (the most current year for which statistics are available) there were 15,600 clothes-dryer fires, resulting in 20 deaths, 370 injuries, and $75.4 million in property damage. Dryer ducts often run between the floor joists and terminate through the rim joist — right where most decks are connected. So yes, there are some concerns.

Dryer fires generally occur when lint builds up in the vent (**Figure 1**). This obstruction not only provides fuel but also increases the internal temperature of the dryer. The dryer forces air through the vent, bringing together the three ingredients of a fire (fuel, heat, and oxygen).

**Figure 1. Unbelievable as it may be, this photo wasn't staged. The lint caught in this dryer exhaust termination came through the duct and constitutes a serious fire hazard.**

**Figure 2. Even a small accumulation of snow would block this termination, preventing the discharge of heat from the dryer and trapping lint.**

In many homes the only accessible portion of the dryer exhaust system is the exterior termination, provided a deck hasn't already concealed it. Since lint often builds up in the backdraft damper mechanism at the termination, homeowners must be able to get to the vent to clean it for the system to be effective and safe. The 2006 International Residential Code refers to the dryer manufacturer for vent termination requirements (M1502.2); luckily, all dryer manufacturers have similar requirements.

There is no definitive rule for what constitutes access, or how much clearance is needed beneath a deck for the vent to be accessible. This is where common sense comes into play; a look at other code sections is a good start. The ultimate decision is up to the local inspector, but I suggest using 36 inches of clear height beneath the deck as a minimum. This is an acceptable height for an escape-and-rescue path beneath a deck from an emergency opening (egress window), so it also seems a reasonable height for allowing maintenance.

For a deck that must be less than 36 inches high, the best option may be to construct an access panel in the deck surface.

You could consider locating a low deck below the dryer vent, if structural considerations such as ledger attachment could be accommodated. Keep in mind that a 12-inch vertical clearance is typically required beneath the lowest portion of the vent's hood and the grade or floor below (**Figure 2**). This is intended to prevent snow, leaves, or other external debris from blocking the exhaust. It also gives the occupant of the home plenty of room to inspect the backdraft damper and clean out any collected lint. It doesn't, however, leave a lot of room for the deck.

An alternative would be to turn the duct up the exterior wall of the building, then out again at a higher termination. Be careful with this option. While it would raise the height of the termination, it would also increase the length of the duct. The IRC limits the length of dryer ducts to 25 feet — with each 90-degree bend counting as 5 feet — and requires the duct to be accessible enough to evaluate its total length. ❖

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