FACTS ABOUT FIRE SPRINKLERS

The home building industry is dedicated to the safety of the communities in which they build.

That's the reason why the National Association of Home Builders supports programs that encourage the installation and maintenance of smoke alarm systems in all homes.

Home builders have a vested interest in the safety of their products both during the building process and after the house becomes someone's home. Whenever changes are proposed to the building codes that govern how homes are constructed in each community, the home builder acts as a consumer advocate. It's the home builder's role to make sure that these proposals are necessary and that they are cost effective before they are adopted so that homes stay affordable. For each $1,000 added to the price of a home, another 250,000 potential home buyers are forced to remain on the sidelines.

Home builders would never diminish the important role that cost-effective building codes play in providing for occupant safety and health; in fact, new homes are safer than ever. However, as a society, we cannot afford to deny needed housing for the sake of new requirements without proven benefits.

While they should remain an option for home owners who choose them, fire sprinklers in single-family homes are expensive to install, can be difficult to maintain and do not represent a cost-effective safety improvement over smoke alarm systems. For that reason, NAHB does not support measures to mandate their use.

CURRENT FIRE LOSSES

Current fire losses do not warrant fire sprinklers.

Because of changes in residential construction technology, consumer behavior and the concerted efforts of fire fighters, home builders and other safety advocates, the number of fatal fires has dropped dramatically in the past 20 years and this trend continues, despite the significant population growth our nation continues to see. Each new home is a safer home that benefits from new products and improvements in construction techniques.

The success of smoke alarm systems as a low-cost life saver cannot be understated. As smoke alarm systems are installed, fire deaths go down. According to the U.S. Fire Administration, less than 4 percent of residential fire fatalities between 2001 and 2004 were reported as occurring in homes with working smoke alarm systems. That's an incredible success rate.

NEGLIGIBLE EFFECT ON HOMEOWNER INSURANCE RATES

Requiring fire sprinklers will not decrease taxes or fees and has a negligible effect on homeowner's insurance rates.

Sprinklers won't affect fire department staffing levels or the number of fire stations a community may need because in most jurisdictions, staff and facilities are also necessary for quick response to EMS calls. Right now, the average time spent on actual house fire calls is about 3 percent nationally. Adding fire sprinklers to new homes will not reduce fire departments' staffing or equipment needs.

No matter if there are sprinklers in a home, should a fire be reported, the fire department will send the same number of responders. There is no fiscal advantage or cost benefit to the individual or the community by mandating fire sprinklers.

Sprinkler advocates also assert that home owners see discounts on their property insurance when fire sprinklers are installed. However, there is no consistent industry-wide practice. In eight insurance companies surveyed by sprinkler advocates, most discounts ranged from 2 percent to 10 percent a year. Using a conservative installed cost estimate of $1.50 per sq/ft in a 2300 sq/ft home with an annual property insurance premium of $1000, it would take 35 years even for a 10 percent discount to pay for a system that will most likely never be needed.

WHERE FIRES OCCUR

Requiring fire sprinklers in new homes does not address the problem of where fires occur.

No data is collected on the age of homes experiencing a fire, although there is sound evidence that age of the structure is an important factor. Existing fire data showing the continued decline in the rate of fire incidents, injury and death is consistent with the retirement of older housing stock and the construction of new stock.

Studies have shown those at greatest risk include those who live in substandard housing, where preventive maintenance is least likely to take place. Poorer, less educated Americans are more likely to live in substandard housing than wealthier, educated Americans. It's more likely that a wealthier person will be in a position to buy a new home. That means that residential fire sprinklers, usually mandated in wealthier communities where their cost is less of a barrier, are least likely to protect those who could benefit by them the most.

WATER DAMAGE

Water damage can be a significant problem.

The standard NFPA 13D system advocated for residential fire sprinklers is designed to supply water to two sprinkler heads at 13 gallons per minute from each sprinkler head. That means that 10 minutes of flow would flood more than 260 gallons of water into a room -- or 520 gallons in 20 minutes. Whether the activation is accidental, a malfunction, or result of a fire, there will be significant

damage to the home and potential for mold and other problems well into the future.

Once the sprinklers are activated, the water will flow until the fire department has been notified, arrives on the scene, evaluates and determines the structure is safe, and then finds and turns off the water supply. Manufacturers of sprinkler systems and fire departments do not recommend you attempt to shut off the sprinkler system without assistance from the fire department.

Having sprinklers is also no guarantee that fire fighters will not turn on their hoses. Claims that less damage will be caused by a sprinkler than a fire hose are unsubstantiated. Any amount of water applied to interior components of a home can cause significant amount of damage, whether it is 260 or 2,600 gallons. Low-flow shower heads operate at less than 2.5 gallons per minute. Twenty minutes of two head sprinkler activation could be the equivalent of running your shower in the living room for about 3 ½ hours.

Additional home flooding risks come from the vulnerability of the pressurized sprinkler heads, which can activate if they are dislodged or disturbed. And local requirements for water storage tanks and additional plumbing in the home open up the specter of frozen, pressurized pipes in some parts of the country.

TRADEOFFS ARE A FALSE INCENTIVE

Tradeoffs are a false incentive.

Fire sprinkler manufacturers state that the net cost may be very low per household and cite the possibility of development tradeoffs, like narrower streets and fewer fire hydrants. However, negotiating for those tradeoffs is difficult because local ordinances and planning rules are not consistent from community to community. And there is no demonstrable savings in infrastructure costs for the jurisdiction – when as little as 3 percent of a fire fighter's time is spent battling house fires, installing fire sprinklers in new homes will not have a significant impact. Furthermore, if reductions in fire safety provisions can be permitted in other areas if sprinklers are mandated, then why require sprinklers if no net benefit is gained? Tradeoffs verify the argument that current fire safety provisions in building codes and planning already are adequate.

FIRE SPRINKLER MAINTENANCE

Maintaining a residential fire sprinkler system is not the same as maintaining a smoke alarm system.

Homeowners can check on the operation of smoke alarms without costly professional intervention.

The fire sprinkler valves must be checked periodically to verify the system is activated. Sprinkler heads must be checked to make sure they are clear of obstacles. Homeowners must be careful not to block them or paint over them. Also, if a backflow preventer is installed, an expensive annual inspection is usually mandated by the local water purveyor.

A sprinkler industry advocacy group, the Home Fire Sprinkler Coalition, recommends that home sprinkler systems be installed according to the latest recommendations from the National Fire

Protection Association, or NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.”

This same document advises that the sprinkler pipes in the antifreeze-type systems installed in colder climates be emptied and then refilled with an antifreeze solution every winter, and that monthly inspections and tests of all the water flow devices, pumps, air pressure and water level be performed.

When the home relies on a well rather than a municipal water source, the costs of maintaining the necessary pumps and holding tanks must be factored in as well.

NO MEASURABLE TRACK RECORD

Residential fire sprinklers do not have a measurable track record.

While sprinkler manufacturers and installers assert that residential fire sprinklers add a necessary measure of safety for a home's occupants, there have been no studies demonstrating the efficacy of fire sprinklers with smoke alarms versus smoke alarms alone. These advocates do agree that fire sprinklers should be not installed without also installing smoke alarms – because the most important thing to do in a house fire is to get out of the house.

Unfortunately, the reliability of residential fire sprinklers can also be questioned. There is no study that shows how long sprinkler systems will last. After smaller recalls by other companies in 1998 and 1999, a major fire sprinkler manufacturer recalled 35 *million* fire sprinkler heads in 2001 and any requirements that the manufacturer notify owners of homes where these defective heads have been installed have now expired.

HOMEOWNERS HAVE CHOSEN

When given a choice, homeowners are not likely to install sprinklers

Sprinkler advocates point to consumer demand as an important reason to mandate residential fire sprinklers. Unfortunately, that demand does not really exist. When likely voters were asked if fire sprinklers should be required in new homes, an overwhelming 89 percent said that smoke detectors already do an adequate job of protecting them in their homes and 28 percent do not want sprinklers at all, even if they were provided free of charge.