

October 26, 2011

To: Dan Tierney  
From: Bob Fusari, Sr. (Working Group Member)  
Re: HBA of CT Response to Connecticut Residential Fire Sprinkler Research Working Group Facts, Findings, and Final Report.

- a. The HBA of CT does not agree with the findings and conclusions in item a.
- “If” sprinklers are adopted, the “**IMPACT**” on the incidence of fire deaths with and without sprinklers is an appropriate subject for the Working Group to study and make a finding. If the subject was studied, the finding would be that the installation of fire sprinklers in all new 1 and 2 family homes would have **NO** “**IMPACT**” on the incidence of fire related deaths in new 1 and 2 family homes since the data that is easily available shows that there have been **zero** deaths in 1 and 2 family home fires between 2002 and 2006 that had both battery operated and hard-wired smoke detectors. See [National Fire Incident Reporting System-CT Table 2002-2006 SF Homes](#). See also [Connecticut Residential Fires by Age of Home](#), showing data from 2000-2006 and 1 fire death in a multifamily structure built since 1987. Smoke detectors were first required in CT in 1979, and hard wired detectors were required in 1985. If people were dying in 1 & 2 family homes built since 1985, the proponents would have quickly submitted data to prove that point. They did not.
  - Furthermore, the National Fire Incident Reporting data shows that property damage in the only fire that occurred in a home with both battery and hard-wired smoke detectors in the 5 year period was \$11,909. Clearly, if fire sprinklers prevented **all** property damage they would not be cost effective. The total number of all residential units built in CT from 2000-2006 was 52,457. If the sprinkler mandate had been in place, an outrageous sum of money would have been expended to save, in relative terms, a very small amount of property damage. The current fire insurance system is a much better, much more cost effective system to cover these property losses.
- b. It should be made clear that there are 3 different types of public water purveyors:
- Municipal Systems that are owned and operated by a municipality that may supply water to other municipalities. (New London)
  - Regional Water Authorities (MDC, South Central Connecticut Regional Water Authority) that supply water directly to consumers in a number of municipalities and to municipal systems (Portland).
  - Investor owned water systems (Connecticut Water)
  - Except for the Investor Owned systems, there is no state authority or department that has jurisdiction over municipal and regional systems as it

regards fire sprinkler regulations. All types of systems are regulated by the Department of Public Health and the Public Health Code with regard to water quality only. Therefore, getting a consistent set of regulations for servicing 1 and 2 family homes with fire sprinklers that **all** water purveyors **must** follow is most likely not going to happen in the foreseeable future.

c. No comment

d. This could be made more informative by a simple chart showing the cost to the consumer.

Builder Cost (3,750 Sq. Ft. X \$1.84) =	\$6,900 (Including Design)
Builder Overhead @ 10% of cost(\$6,900 X .10)	690
Builder Profit @ 10% of Cost (\$7,590 X .10)	759
Sales Commission @ 5% of <u>Sales</u> Price	<u>439</u>
Total Cost to Home Buyer	\$8,788

Since the reported cost for a well supplied/pump system was so close to the public water system there would be no measurable difference. However, this cannot really be the case. The installer must do everything necessary for a public water system plus supply and install a storage tank, pump, and generator back-up with automatic implementation. Since we discarded the 4<sup>th</sup> quote as unrealistically high, we should have discarded the "Well, Tank, & Pump" quotes for being unrealistically low. Accordingly, we would not have a reliable quote for a "Well, Tank, & Pump" system. Showing similar costs for both systems is misleading. The report should also note that requests for quotes were sent out to contractors in 7 districts in CT. After much prodding, the Working Group received only 4 quotes as follows:

<u>Municipal Systems</u>	<u>Well, Tank &amp; Pump</u>
\$9,250	\$8,250 (Not realistic!)
\$6,277	No Estimate (Distorts average)
\$5,185	\$5,185 (Not realistic!)
\$12,968	\$19,105 (This quote was discarded)

The first 3 quotes included \$500 for design. The 4<sup>th</sup> quote included \$1,200 for design.

The \$1.84/\$1.82 per sq. ft. figure uses the average quote (after disregarding quote #4) divided by 3,875 sq.ft. sprinkled, not the 2,500 sq.ft. size of the finished house.

If \$8,788 is the typical cost to a new home buyer (there was much discussion that the cost of homes did not increase when mandatory fire sprinklers were adopted and that the builders simply "absorbed" it) the IMPACT on the new home buying public would be over **\$70,000,000 per year** at a typical rate of 8,000 units per year. If the cost was not passed on to the consumer, the cost to the industry would be over **\$60,000,000. SOMEBODY HAS TO PAY.** For

what purpose? Save zero lives and \$11,909 in property damage. (See Spreadsheet)

- e. The HBA made repeated attempts to show that we cannot get new installers through the licensing process to meet the demand if Fire sprinklers were required in a normal market. (8,000 units per year.) The Working Group chose to not tackle this matter. We couldn't even get an estimate of the man-hours necessary to install a typical 3,750 sq. ft. system. The union rep stated 40-man hours outside the meeting, but would not volunteer or confirm it during the meeting. At \$50 per hour that would be \$2,000 on the typical system. Where does the remaining \$4,900 go?

f, g, h, & i are OK

- j. In addition to the percentage quotes, the HBA received a real-dollar quote from the Roberts Agency (one of the largest insurance agencies doing work with the residential construction industry in CT) for a typical \$350,000 insured value (Not market or assessed value) in West Hartford on public water with and without a 13-D system.

With Smoke Detectors only	\$769
With 13-D Sprinkler System	\$751
<b>Annual Savings</b>	<b>\$ 18</b>

There was an additional quote if the sprinklers were located in closets, baths, attic, etc. of \$700. \$69 annual savings. There is a # designation for this type of system, but it is not 13-D which is proposed.

- k. and l. Since the Report's "Findings" for these two sections are admittedly lifted from an NFPA article, we first urge that this disclaimer be placed at the beginning of the "Findings" on pg 6 versus at the end on pg 9. Also, we urge that a response to the NFPA information regarding light frame wood construction also be included, as [per the attached](#).

#### Summary:

- There is no compelling need.
  - Battery operated hard-wired smoke detectors save most if not all lives
  - Doesn't reduce property damage enough to justify costs.
- Cost is outrageous
  - Over \$70,000,000 annually borne by all buyers of new homes
- Implementation would be difficult
  - Shortage of licensed manpower
  - Widely varying requirements regarding water purveyors
- Virtually no public demand
  - Many buyers consider it a potential liability