

Testimony before the Senate Labor and Industry Committee  
On Senate Bill 1001  
Presented by Doug Meshaw on behalf of the Pennsylvania Builders Association  
October 6, 2009

Good morning, Chairman Gordner and the members of the committee. My name is Doug Meshaw and I am the Executive Vice President of the Pennsylvania Builders Association. I am here today to discuss the Pennsylvania Construction Code Act also know as the UCC. I realize this hearing is on SB 1001 but there are other related issues that the PBA believes needs addressed. The imposition of residential sprinklers is but one of a number of proposed construction code changes whose cost greatly exceeds the consumer benefit. We need to consider legislation that would keep in effect the current 2006 ICC codes, essentially “postponing” the adoption of any new code changes for three years except through the process already establish in section 503 of the UCC. We propose to take the next three years to work with legislators and other stakeholders to look at all of the problems which have surfaced since the implementation of the UCC and evaluate how the codes process should best function to produce a reasonable and rational building code in Pennsylvania. Working together, legislators and concerned organizations can ensure that by 2012 we have a revised building code process that not only ensures quality home construction but also affordability for the municipalities, builders and new home consumers affected by the code. Pennsylvania is ranked among the top-20 states for its homeownership rate. By keeping new homes affordable, we can ensure our state continues to be a national leader in this important area.

Pennsylvania was one of the last states in the country to adopt a statewide building code. With 2,562 local municipal governments (the second highest in the nation) and each of them writing their own codes, which ranged from absolutely no building code in many rural municipalities to, onerous, strict, burdensome codes in many municipalities that quite often were established to be used as a ‘no growth’ tool. The need for a uniform building code was obvious and was finally addressed in 1999 with Act 45.

When Act 45 was enacted, it simply adopted the BOCA code which was a code used primarily in the North Eastern United States as the Pennsylvania statewide building code. There was no way to foresee at that time what this simple adoption would grow into. Within a year BOCA merged with two other code writing authorities and formed the ICC (international code council). This combined private non profit organization now develops the code that Pennsylvania must adopt as mandated by the UCC on a triennial basis.

To better illustrate what this had grown into, the original code book adopted by the UCC, the 1996 BOC was 376 pages, by 1999 it was still 376 pages. Following the merger of the three code writing bodies, the 2000 IRC totaled 600 pages, by 2003; it grew to 604 pages, and in 2006 – 684 pages. The 2009 version is 868 pages.

This is just one code book that is required to build one and two family dwellings. This does not take into account the IBC for commercial construction and all the sub code books required to be maintained by each municipality. The entire set of 10 books includes thousands of pages, at a cost of over \$1,500 per municipality. Of course, there is also the cost of training for builders,

designers, code officials and other industry members and the focus of the training on changes rather than other critical concepts.

Simply postponing adoption of all the new ICC codes until a better system can be established would save municipalities over \$4 million in the costs of these books alone. Considering that we are in the worst recession in years now is not the time to impose unnecessary additional costs on local governments, small businesses and consumers. This will only slow down the economic recovery. Economic recovery in the housing sector can have a major impact on the entire state's economy. Consider that housing represents 15% of Pennsylvania's gross state product. A regional Pennsylvania study (Economic Impact of Home Building in Suburban Philadelphia – 2005/2006) found that the construction of 100 single-family homes in the Philadelphia region generates \$25.6 million in local income, \$3 million in taxes and fees for local governments and nearly 450 local jobs. Clearly, new home building is vital to the state's economy. Additional state mandates that make new homes less affordable will slow the recovery of the housing industry and in turn, bog down the entire state economy.

It is estimated that the proposed 2009 building code standards will add a minimum of \$10,000 to the cost of a new 2,500 square foot home. This cost is difficult to calculate because of all the variables involved in new home construction, such as the size of the house. However, UCC experts have concluded this is a reasonable and conservative dollar estimate.

Even relatively small increases in new home prices have a large impact. A \$10,000 increase will stall the homebuilding recovery. A report from the National Association of Home Builders on the impact of government regulation on housing finds that each \$1,000 increase in the cost of a new median-priced home forces 217,000 prospective buyers out of the marketplace. Using this statistic, a \$10,000 increase will force more than 2 million prospective buyers out of the marketplace. PA alone has seen building permits fall from 21,097 in 2004 at the height of the housing boom, to 5,823 as of July 2009. Now is not the time to make new homes more expensive.

The International Code Council (ICC) has decided to do its own internal review of its standards setting process coming out of Minneapolis in October 2008. It has established a task force to review its codes development process, acknowledging that the process has room for improvement. We are asking for the same opportunity in Pennsylvania.

There needs to be a time out to review not only the code development process but the multitude of problems which have surfaced regarding the UCC. The fact that the Code has been amended no less than 10 times in 10 years shows that there have been problems from the start. (A complete list is attached at the end of the testimony). We support legislation that would continue the use of 2006 ICC codes, instead of implementing the 2009 codes, and allowing the time between the 2009 codes and the 2012 codes to review procedure.

Following the RAC's decision to maintain the adoption of the entire ICC codes without any deletions, there are no less than 14 bills in the House and Senate being considered that would amend the UCC. Also, the RAC is recommending over 28 changes to Chapters 401 and 403

(Training and Certification of Code Administrators and the Rules and Regulations of the UCC.) This is yet another reason to examine and properly address all of these issues.

Because of the controversy coming out of the October 2008 meeting, the ICC has decided to re-review and reconsider revisions to several controversial decisions made during the meeting. The net effect of the revisions would be to delete the reference of the mandatory requirement of residential sprinkler systems in one-and-two family dwellings and townhouses and replace with language that explains the proper installation design and requirements of the system when it is provided. This change will provide the homeowner with the continued ability to choose whether or not a residential sprinkler system is appropriate for their situation. The National Association of Home Builders (NAHB) strongly disagrees with the fire services perception of America's fire problem and the proposed solution to reduce the number of fire fatalities that occur each year.

By installing smoke alarms and insuring they are in operating condition, the chances of surviving a residential fire are 99.45%. NFPA estimates that an additional 890 lives could be saved each year if smoke alarms were maintained in working condition.

In 1977, less than 0.008% of the housing market was affected by structure fires. In 2005, that number was reduced to less than 0.002%. Over the past three decades, there has been a substantial decrease in the number of residential structure fires in relation to the growth of American housing. No one can predict when or where a fire will occur, but to require every home to be equipped with a residential sprinkler system based on the figures below is not cost-effective.

Consideration as to whether the requirements for fire sprinklers in dwellings be mandatory should remain a local issue. The sole purpose of an "Appendix P" in the 2006 IRC was to provide local jurisdictions with the means to adopt a code or standard that is applicable to their community. In Pennsylvania Section 503 of the UCC already provides municipalities with a mechanism to require sprinklers. Not every jurisdiction agrees that radon resistant construction, patio coverings, and safety inspections of existing appliances need to be regulated or inspected. Contrary to the belief of some activists, several jurisdictions have decided that Appendix P (the provisions for residential sprinkler systems) is not applicable to their state or local jurisdictions. Of the 47 states that have adopted the IRC, none have adopted the 2006 IRC with the inclusion of Appendix P. During the adoption process in six states, there was a proposal put forth to include appendix P in the formal adoption of the 2006 IRC and the proposal was voted down every time.

According to the U.S. Fire Administration more than half the states in America are below the national fire death rate of 13.6 per million and over the past ten years the number of one-and-two family dwelling fires, deaths and injuries have fallen (6%, 18% and 26% respectfully). While Our population continues to grow.

While the fire service and sprinkler advocates acknowledge that the median age of a home is 32 years, the connection between fire deaths and the age of the home is elusive. For several years data has been collected for several relevant facts about fires. The cause of the fire, whether

smoke alarms were present and were working, type of smoke alarm present, whether the fire was confined and did not activate the sprinkler system.

While there have been no studies conducted to investigate whether fire fatalities are less likely to occur in newer homes, there is supporting evidence of this in reports issued by NFPA regarding the performance of smoke alarms. According to these reports, there is a significant difference in the number of fatalities and the number of fires when the smoke alarm is present. This includes information regarding smoke alarms that were either battery operated, hardwired with battery backup or hardwired. According to April 2007 Report "U.S. Experience with Smoke Alarms and other Fire Detection/Alarm Equipment" by Marty Ahrens, 65% of the reported residential home fire deaths occurred in homes where there was no smoke alarm present,(43%) or did not operate (22%). Of the 35% fire fatalities that occurred when a smoke alarm was present and operating, it was reported that two-thirds of the non-confined home structure fires occurred in dwellings with battery operated smoke alarms with the remaining third evenly divided between homes with hardwired and hardwired with battery backup.

From this information we can see that as the requirements for smoke alarms have evolved, as well as other improvements in the methods used for passive fire protection construction, there are fewer fires and fewer fire fatalities in homes that are equipped with smoke alarms. Along with improvements to the power source, the National fire Alarm Code has also increased the number of required smoke alarms in a one-and-two family dwelling over the years. In 1992 it required that all smoke alarms be interconnected. When you consider the advances made in the requirements of smoke alarms and look at the results in reducing the number of fire fatalities, the solution is educating the public about the importance of working smoke alarms and practicing proper fire prevention.

The most cost-effective means of reducing the loss of life is through increasing the public's awareness on the use and maintenance of smoke alarms. According to NFPA reports estimated 890 lives could be saved annually if existing homes were equipped with working smoke alarms.

Many will say that our approach is merely to side-step mandating fire sprinklers in all new homes. This is not the case. It is correct that government-mandated fire sprinklers are part of the proposed 2009 IRC, but the IRC includes other code changes that, taken together, will total an estimated \$10,000 increase to the cost of a new home in Pennsylvania.

Additionally, the 2009 codes are a direct threat to the continuing existence of many log wall systems and they could put the log home industry in Pennsylvania out of business. The Log Homes Council represents several member companies that produce log home packages in Pennsylvania, utilizing significant resources within the state. Tracked since 1986, log home industry surveys have consistently identified Pennsylvania as one of the states in which log homes are most popular. It has consistently ranked #1 amongst all states for the number of builder/dealer representatives of log home producers as well as the number of log homes built. It has also maintained a top-ten state ranking for the number of log home manufacturing and/or handcrafting companies. Looking into the future, Pennsylvania typically provides the fifth highest number of inquiries for prospective new log homes. Annually, this industry has generated nearly \$500 million in revenue in Pennsylvania.

There are significant concerns to the log home industry in regards to the new energy code requirements. At the ICC Final Action Hearings, the IRC and the International Energy Conservation Code (IECC) were approved. Overall, they include a 15% energy efficiency upgrade requirement from the 2006-I codes. Since the 2006 I-codes, the log home industry has been able to comply with prescriptive energy code minimums by using various tradeoffs. Those tradeoffs are no longer options.

Eliminating the equipment efficiency trade off provisions within a performance path will discourage the use of higher efficiency equipment. Quite often the use of this equipment provides a more cost effective solution to achieve code compliance. Eliminating this provision discourages the concept of the “house as a system” approach which is a cornerstone of the PA Home Energy program, Energy Star, and other recognized energy efficiency programs.

Significant improvements in the efficiency of HVAC and water heating equipment have been made in recent years. With the increased emphasis on new and improved technologies, this trend will continue. Increase efficiencies in existing equipment along with new technology with result in even higher savings for Pennsylvania consumers. Eliminating the ability to recognize the value of these technologies in the market place will prove detrimental to all Pennsylvanians. Enacting this change will negatively impact the use of state of the art equipment and technology and increase the cost of construction.

A side benefit of the new technologies in HVAC equipment is an increase in indoor air quality, which yields a healthier building. Additionally, increased efficiencies will result in reduced overall consumption of natural resources which will improve the air quality for all PA residents.

By excluding this provision from the code, builders and consumers will retain the option to optimize a code compliant building design by using high efficiency equipment. The new language in the 2009 IECC discourages the use of high efficiency equipment which is often a more cost effective solution to achieve code compliance and will result in much higher costs. This code change will drive builders to often use less efficient equipment while dramatically increasing the cost of construction of the building envelope.

This change was proposed by the Energy Efficient Codes Coalition who has two primary sponsors (North American Insulation Manufactures Association and Cardinal Glass) with a primary interest in the builders buying more expensive windows with a lower “U” value and more fiberglass insulation rather than higher efficiency HVAC and water heating equipment to comply with the energy code.

There is some misconception that excluding some of these IECC codes, would eliminate Pennsylvania’s portion of Stimulus funds. Our understanding is that in order to qualify for the extra grant dollars, you simply have to ensure to the Sec. of Energy that the state will be in compliance with the most recently published IECC or equivalent code (prescriptive updates to the 06) by 2017. If Pennsylvania decides instead to adopt the 2012 in 2012 then that really should be sufficient, so long as the Governor has notified the Secretary of this plan. The Department of Energy has released some guidance on this funding, but it remains very vague.

Ultimately, so long as the most recently published or equivalent code is adopted statewide by 2017, the stimulus money will remain intact.

When the Uniform Construction Code went into effect in 2004, no one could have anticipated the full extent of this change. The building code has brought improvements, providing some degree of uniformity of building regulations across Pennsylvania and ensuring a baseline of performance for new home construction. However, no one anticipated the expense or problems that would come with the abolishment of BOCA and merging it into a super International code development organization with major changes to the building code every three years. The cost of these codes changes every three years is a lot for municipalities, builders and consumers to deal with. Thus, developments in the national and state code development process have led builders and local governments to question the reasonableness of the building standards coming out of this process. We are asking the legislature to provide a time out on adopting any new codes and to establish a legislative task force to look at all the issues regarding the UCC in Pennsylvania.

With all of the information given in this written testimony, PBA believes the original intent of Act 45 has been lost. Let's take the time to re-evaluate the process and determine what is best for Pennsylvania.