Small Business Economic Impact Statement
2012 International Fire Code
State Building Code Council
July 10, 2012

Executive Summary

Impact on small business

The proposed rule adopts the updated 2012 edition of the International Fire Code. Since 1985 the State Building Code Council has been required to update to new editions of the building code, per RCW19.27.074. The International Code Council (ICC) updates the codes, including the IFC, every three years. Their process involves development of interest groups within the design and construction industry and from governmental organizations.

The 2012 IFC contains about 60 significant changes as compared to the 2009 IFC. According to the Proposed Changes to the 2009 Edition of the IFC, published by the International Code Council (ICC), less than seven percent of the approved amendments result in more than a minor increase in cost of construction; most amendments have no impact on construction costs. The primary effect of the amendments is improvement of the code. The objective of the amendments is to create a consistent regulatory system.

The SBCC appointed a technical advisory group to review the 2012 IFC, including the significant changes, the applicability of the existing statewide amendments, and several proposed new state amendments (seven new proposals for 2012, plus two tabled proposals from 2011). The TAG included Fire Service personnel from the state and local regulatory community, local building officials, representatives of the multi-family housing and construction industries, and the fire protection industry. Small business was represented through these appointments. All TAG meetings are open to the public and small businesses are notified; several chose to participate in the review of code amendment proposals.

These proposed rules are anticipated to be job neutral, although there would be some temporary work for installation jobs for certain trades people, for example, if the luminescent path markings requirements are adopted. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost.

Section I: Introduction/Compliance with the Rules

The 2009 IFC with state amendments is currently in effect, codified as WAC 51-54; for the 2012 code adoption cycle, SBCC staff and the TAG recommend that the newly reorganized IFC be adopted as WAC 51-54A for greater efficiency. For a complete list of all current state amendments to the Fire Code see this link to the WAC language.

The adopted state amendments add flexibility and clarity to the code. Some of the rules may represent a savings for small business building owners and operators, while other rules may incur costs for these entities.

The 2012 edition of the IFC contains about 60 significant revisions from the current 2009 edition. In addition, several proposed State amendments to the code address specific issues, for example:

- Carbon monoxide alarm requirements in residential settings; based on legislative requirements that are more protective/prescriptive than the model code. Minimal new impact since the law has been in effect since 2010.
- Luminous egress path markings for existing high rise buildings; following the model code to require the markings would incur costs on existing building owners according to testimony provided to the Council in November 2011 and to the Fire Code TAG. Alternatively,

permanent adoption of the current emergency rule, in lieu of adopting the model code language, would exempt existing buildings from the requirement to install luminous markings and thus eliminate cost concerns.

Elevator pressurization; the current state amendment to the IFC is deleted and the language from Section 909.21 of the 2012 IBC is adopted as a state amendment to the IFC. Construction costs may increase for some building projects (for anticipated impacts see the SBEIS for the IBC).

New code requirements in the 2012 IFC regarding Photo Voltaic Solar installation were not adopted due in part to anticipated economic impact on the solar industry. The Fire Code TAG recommended that a special TAG be formed to address the issues and develop proposed language for adoption in 2013; the special TAG will be formed in the fall of 2012.

Section II: Compliance Costs for Washington Businesses

The adoption of the updated IFC and state amendments may result in some cost outlay for small businesses in construction industries for specific building projects, for a transition period.

The 2012 edition of the IFC costs $88 on CD and $98.75 for a loose leaf binder. The codes are also available to view online at no cost. There is also an online subscription service available, at a per user cost.

Some small businesses could see an increase in revenue.

The overall impact would be positive, because the 2012 IFC has been completely reorganized to correspond with certain elements and chapters in the IBC. With the reorganization, the new edition will be easier for businesses and local officials to find the information they need to ensure code compliance and building safety. This change will result in greater efficiency in project planning and development, and an anticipated reduction in review and approval times. The degree of impact diminishes during the code cycle as rules become familiar and construction practices adjust and are accepted.

Costs of equipment, supplies, labor, professional services, and increased administrative costs.

The costs for compliance with the 2012 IFC are specific to the project and the plan.

2012 IFC Chapter 4 Emergency Planning and Preparedness

In 2009 the SBCC adopted a complete revision of the IFC Chapter 4; that chapter included requirements for Group E lockdown drills and other related responsibilities for fire personnel. The proposed state amendment for 2012 would remove those lockdown-related requirements, which are considered to be the purview and responsibility of the law enforcement community rather than the fire service. This amendment would have no impact on, and would be cost neutral to, small business.

2012 IFC section [M] 609.2 Commercial Kitchen Hoods

The amendment was referred by the Mechanical TAG. It is a clarification of the requirements for hood types and provides a table to identify the type of hood required for domestic cooking, based on the use of the space and the type of cooking. It provides for an additional exception to eliminate the need for a hood where certain electric cooking appliances are being used, but do not produce heavy grease laden vapors as documented by an approved testing agency. There would be some savings to certain businesses that would no longer need to install a Type 1 hood.

Assumptions:

- **EQUIPMENT: TYPE TWO HOODS ARE LESS EXPENSIVE.**
- **SUPPLIES: N/A**
- **MATERIAL: LABOR:**.N/A

- PROFESSIONAL SERVICES: FEWER INSPECTIONS WOULD BE REQUIRED
- ADMINISTRATIVE COSTS: LESS RECORD KEEPING WOULD BE REQUIRED

Impact on sales or revenue:

The impact will be neutral as hoods will still be required, but for some businesses the cost of the Type 2 hood will be lower as compared to the Type 1 hood previously required. There would be a one-time cost associated with obtaining documentation.

2012 IFC section 903.2.11.1.3 Basements

The 2012 IFC modified language requiring fire sprinklers in basements where certain obstructions are present that restrict the application of water from hose streams; the state amendment modifies the language to situations where the exit access travel distance is increased beyond 75 feet. This proposed modification is cost neutral.

2012 IFC section 1104.24 Egress Path Markings

The 2012 IFC requires installation of Photoluminescent marking systems in the stairways of existing high-rise buildings except for certain historic buildings. The SBCC has previously adopted an emergency rule to eliminate this requirement due to cost concerns expressed by some building owners. In response, Photoluminescent industry representatives provided information to the TAG on May 4, 2012 indicating that there is a broad range of products available, and that the products can be installed at a reasonable price. While cost estimates range from $1,400 to $5,000 per stairwell per floor, actual installation experience has shown costs to be lower. For example, a hospital recently installed the materials at a cost of $954 per stairwell. According to the PLA, costs for nine recent projects averaged $1,277 per stairwell. Given this information, the TAG recommended that the luminescent markings should be required in high rise buildings with the adoption of the 2012 Fire Code.

Assumptions:

- EQUIPMENT: MECHANICAL APPLICATION OF PRODUCTS AND MATERIALS
- SUPPLIES: VARIABLE ACCORDING TO THE NEEDS OF THE CUSTOMER
- MATERIAL: VARIABLE ACCORDING TO THE SPECIFIC LOCATION
- LABOR: FIRE PROTECTION SPECIALISTS TO ENSURE INSTALLATION IS ACCORDING TO PUBLISHED SPECIFICATIONS AND STANDARDS
- PROFESSIONAL SERVICES: BIDDING BY FIRE STOP CONTRACTOR TO IDENTIFY OPTIONS AND ENSURE APPROPRIATE SYSTEMS/PRODUCTS ARE USED
- ADMINISTRATIVE COSTS: ONGOING MAINTENANCE TO ENSURE RELIABILITY

2012 IFC section 5306.4 Medical Gas Systems

Specifies that maintenance and testing of medical gas systems must comply with the maintenance and testing requirements of NFPA 99; this amendment is provided as clarification. This proposed modification is cost neutral.

Section III: Analysis of Proportionate Impact on Small Businesses

The impact on small businesses compared to the largest businesses in the state will not be disproportionate.

The cost of compliance is a proportionate incremental cost, in relation to hours of labor, or costs per employee. The incremental cost of meeting the 2012 IFC, will have a proportionate impact on building and construction businesses. Building projects tend to be unique to type of construction, building type, building site, as well as size of the project. Costs for design and construction will be distributed among the general and sub contractors. Further, construction industry businesses fit primarily into the category of small business. Where an industry has a significant number of large businesses, the costs of compliance for large businesses are

proportional to the number of employees in any size business. The majority of Washington State firms in the design and construction fields qualify as small businesses. The incremental costs of meeting the 2012 fire code are generally proportionate between large and small businesses.

Section IV: Small Business Involvement and Impact Reduction Efforts

A representative of the construction industry served on the IFC Technical Advisory Group (TAG). Members of the luminescent marking industry provided information to the TAG regarding the code requirements for existing buildings in the IFC. Representatives of the housing industry also served on the TAG and discussed impacts.

Section V: Number of affected businesses in Washington:

Businesses Impacted by Updated Fire Code			
Type of business	**NAICS CODE #**	**# IN STATE (UP TO 49 Employees)**	**#IN STATE (50 OR MORE Employees)**
Multi Family Housing Construction	236116	77	0
Industrial Building Construction	236210	89	6
Commercial and Institutional Building Construction	236220	1305	40
Roofing Contractors	238160	973	7
Architects	541310	602	16
Engineers	541330	1665	96
Testing Labs	541380	191	14
Fire Protection	922160	258	6

Section VI: Jobs created or lost as a result of these Rules:

These rules are likely to be job neutral overall, i.e., they will not result in any job gains or losses. The installation of photoluminescent markings would provide temporary employment in the fire stop industry to install the material in existing high rise buildings throughout the state. The estimated number of existing high rise buildings in Washington State is 191, according to the website of Emporis a 'global provider of building information.' It is unknown how many of those buildings already have installed photoluminescent marking products.

According to the Firestop Contractors International Association (FCIA), in some cases it may be possible for building maintenance personnel to install the materials according to the manufacturers' instructions. However, according to most manufacturers a Certified Installer who has been trained in the application specifications is preferred. This is to ensure surface preparation and other requirements are addressed, as well as specific location for the materials and devices. This ensures that products will perform well throughout the life of the product without undue maintenance costs.