**15-110**

**1. State Building Code to be Amended:**

International Building Code  State Energy Code

ICC ANSI A117.1 Accessibility Code  International Mechanical Code

International Existing Building Code  International Fuel Gas Code

International Residential Code  NFPA 54 National Fuel Gas Code

International Fire Code  NFPA 58 Liquefied Petroleum Gas Code

Uniform Plumbing Code  Wildland Urban Interface Code

**Section(s):**

R310.1

**Title:**

Emergency escape and rescue opening required

**2. Proponent Name (Specific local government, organization or individual):**

**Proponent: Jeffrey Shapiro, P.E., FSFPE**

**Title: President, International Code Consultants**

**Date: 2/28/15**

**3. Designated Contact Person:**

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**4. Proposed Code Amendment**. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code additional pages may be attached. (Examples on the SBCC [website](https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=191))

**Code(s)** IRC\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Section(s)** R310.1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Enforceable code language must be used; see an example [by clicking here](https://fortress.wa.gov/ga/apps/SBCC/File.ashx?cid=1803).

Amend section to read as follows:

**Renumber the existing exception as Exception 1, and add a new Exception 2 as follows:**

2. In dwelling units equipped throughout with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

2.1. One means of egress and one emergency escape and rescue opening.

2.2. Two means of egress.

1. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

This is a correlating proposal to one that has been submitted to IBC Section 1030.1. The IBC already permits Group R-1 and Group I occupancies to have windowless sleeping rooms in basements and stories of sprinklered buildings. It is reasonable to extend this allowance to one- and two-family dwellings and townhouses.

Rather than seeking full equivalency with Group R-1 and Group I occupancies when sprinklers are provided, this proposal seeks only a partial credit for basements of dwellings, with the hope of finding common ground with parties who do not support a general exception for means of escape in fully sprinklered homes. This proposal maintains at least one basement escape window or door or an additional means of egress in addition to the primary means of egress. Plus, it is important to remember that both sprinklers and hard-wired interconnected smoke alarms are required to qualify for the proposed exception.

The combination of sprinklers and smoke alarms is well established by the NFPA 101 - Life Safety Code as a basis for eliminating all required means of escape openings from sprinklered one- and two-family dwellings, hotels, motels, apartments and similar uses. In addition, the states of New Hampshire and Virginia have amended their statewide code adoptions by eliminating requirement for means of escape openings when sprinklers are provided. Minnesota adopted a similar amendment, but the allowance was limited to exempting all basement escape windows.

This proposal will be submitted for inclusion in the IRC in the 2018 edition Group B code cycle, and there are many reasons for adding the exception to the Washington IRC now. By providing reasonable incentives, it is possible that more homes will be voluntarily sprinklered by builders and homebuyers seeking the incentives. This incentive is reasonable, recognizing that there is less benefit to a basement means of escape than openings to stories above grade. In a non-sprinklered fire event, it might be possible for an occupant to be rescued or escape using an above-grade window because the lower portion of the window may initially draw fresh air. However, a basement window well will quickly fill with smoke and heated gases if there's an uncontrolled fire in the basement, and the importance of fire sprinklers in providing extra egress time cannot be overstated. Likewise, by the time firefighters arrive, rescuing an occupant from a developed basement fire through a means of escape window or using such window as an escape route for a firefighter seems highly unlikely. Firefighter safety is far better assured by sprinklers.

Looking at the value of this incentive, the cost savings associated with eliminating even one basement escape window and the associated ladder and window well is significant. Combine that with the benefit of eliminating leakage and maintenance issues and tripping/fall hazards that may be associated with window wells, and the incentive grows. Finally, recognize the enormous benefit that this change will offer for homebuyers, who will gain the option of future finishing a rough-in basement without the constraint of laying out sleeping rooms based on existing window locations or having to add windows to an existing basement. This single incentive might be valuable enough to encourage voluntary sprinkler installations, and still, the level of safety will exceed what is required by the IBC for similar occupancies and by NFPA 101.

1. **Specify what criteria this proposal meets.** You may select more than one.

The amendment is needed to address a critical life/safety need.

The amendment is needed to address a specific state policy or statute.

The amendment is needed for consistency with state or federal regulations.

The amendment is needed to address a unique character of the state.

The amendment corrects errors and omissions.

This proposal will incentivize the voluntary installation of fire sprinklers in dwellings.

1. **Is there an economic impact:**  Yes      No

Explain: Because use of the exception is optional, there is no mandatory cost impact. However, the cost of construction may decrease for homes that are equipped with a fire sprinkler system of the exception is utilized.

If there is an economic impact, use the Table below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Building Type | Construction[[1]](#footnote-1) | | Enforcement[[2]](#footnote-2) | | Operations & Maintenance[[3]](#footnote-3) | |
| Costs | Benefits[[4]](#footnote-4) | Costs | Benefits4 | Costs | Benefits4 |
| Residential |  |  |  |  |  |  |
| Single family |  |  |  |  |  |  |
| Multi-family |  |  |  |  |  |  |
| Commercial/Retail |  |  |  |  |  |  |
| Industrial |  |  |  |  |  |  |
| Institutional |  |  |  |  |  |  |

Please send your completed proposal to: [sbcc@ga.wa.gov](mailto:sbcc@ga.wa.gov)

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.

1. $ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs

   that impact the total cost of the construction to the owner/consumer. [↑](#footnote-ref-1)
2. Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and other action required for enforcement. [↑](#footnote-ref-2)
3. Cost to building owner/tenants over the life of the project. [↑](#footnote-ref-3)
4. Measurable benefit. [↑](#footnote-ref-4)