



Proposed Regulation Agency Background Document

Agency name	Board of Housing and Community Development
Virginia Administrative Code (VAC) citation	13 VAC 5-91
Regulation title	Virginia Industrialized Building Safety Regulations
Action title	Amend and Update Virginia Industrialized Building Safety Regulations
Document preparation date	July 19, 2004

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 21 (2002) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

Brief summary

In a short paragraph, please summarize all substantive changes that are being proposed in this regulatory action.

The Virginia Industrialized Building Safety Regulations (IBSR) governs the in-factory construction of industrialized buildings, which are commonly referred to as “modular buildings.” These can include houses, mobile classrooms, office trailers and any buildings which are assembled off-site and brought to a site for erection. The IBSR is companion to the Virginia Uniform Statewide Building Code (USBC) in that both incorporate by reference the nationally recognized model codes and standards of the International Code Council (ICC). This regulatory action is to incorporate the latest available editions of those national codes and standards; the 2003 editions. The ICC International Building Code (IBC) and the International Residential Code (IRC) are the major model codes. The IBC further references the ICC mechanical, plumbing, gas and electrical codes. The ICC codes are known collectively as the “I-Codes.” The identified substantive changes between the 2000 editions of the I-Codes and the 2003 editions of the I-Codes are: (i) garage construction requirements under the IRC have changed to require greater fire safety methods of construction when the garage is located beneath a habitable room, (ii) the use of fire-retardant-treated wood in roof construction of buildings of noncombustible type construction is now permitted with certain limitations, (iii) drains in both residential and commercial swimming pools are now required to have entrapment avoidance features, (iv) provisions for exterior walls adjacent to courtyards in commercial buildings have been deleted, which will subject courtyard walls to the general exterior wall provisions thus eliminating several exceptions which permitted window and door openings in such walls, (v) inclusion of provisions which permit the use of a “putty pad” protection system for electrical outlets in walls required to be of fire resistant construction methods, (vi) permissible use of platform lifts in lieu of

ramps in certain areas is now permitted to accommodate people with disabilities, and (vii) a prohibition against the use of wired glass and a requirement for the use of tempered glass in its place was added.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., the agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The statutory authority to update the regulation is contained in § 36-73 of the Code of Virginia. The promulgating agency is the Board of Housing and Community Development. State law does require the Board to keep the regulation up to date.

Purpose

Please explain the need for the new or amended regulation by (1) detailing the specific reasons why this regulatory action is essential to protect the health, safety, or welfare of citizens, and (2) discussing the goals of the proposal and the problems the proposal is intended to solve.

The reason this regulatory action is essential to protect the health, safety and welfare of the citizens of the Commonwealth is that without the building and fire regulations of the Board of Housing and Community Development being kept up-to-date by using the latest editions of the nationally recognized model codes and standards and without the correlation of this regulation with the other building and fire regulations of the Board, the protection of the health, safety and welfare of Virginia's citizens is not assured since conditions which need to be regulated are not. In addition, where a condition which was previously determined in the nationally recognized codes and standards to need to be regulated is addressed less restrictively in the newest model codes and standards, there would be the risk of exposing Virginia's citizens to unnecessary regulations.

The goals of this regulatory action and general problems this regulatory action will solve are the same as the general reason the regulatory action is essential to protect the health, safety and welfare of the citizens of the Commonwealth. Without keeping the codes up-to-date, there is the potential for not regulating necessary conditions, or over-regulating conditions determined to be less necessary of regulation.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. (More detail about these changes is requested in the "Detail of changes" section.)

Since this regulation is a companion regulation to the other building and fire regulations promulgated by the Board and needs to be coordinated with those regulations, and since the other building and fire regulations of the Board are concurrently undergoing regulatory actions to reference the newest available nationally recognized model codes and standards, the Board is therefore accepting comment on all provisions of this regulation.

The new substantive provisions which have been identified are the major differences between the 2000 edition of the I-Codes, which were incorporated in the existing regulation, and the 2003 editions of the I-Codes, which are being incorporated in this regulatory action. The identified changes are: (i) garage construction requirements under the IRC have changed to require greater fire safety methods of construction when the garage is located beneath a habitable room, (ii) the use of fire-retardant-treated wood in roof construction of buildings of noncombustible type construction is now permitted with certain limitations, (iii) drains in both residential and commercial swimming pools are now required to have entrapment avoidance features, (iv) provisions for exterior walls adjacent to courtyards in commercial buildings have been deleted, which will permit window and door openings in such walls, (v) inclusion of provisions which permit the use of a “putty pad” protection system for electrical outlets in walls required to be of fire resistant construction methods, (vi) the use of platform lifts in lieu of ramps to provide an accessible route for persons with disabilities is now permitted in courtroom areas and exterior routes where site constraints make the use of ramps infeasible, and (vii) a prohibition against the use of wired glass and a requirement for the use of tempered glass in its place was added.

Issues

- Please identify the issues associated with the proposed regulatory action, including:*
- 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
 - 2) the primary advantages and disadvantages to the agency or the Commonwealth; and*
 - 3) other pertinent matters of interest to the regulated community, government officials, and the public.*

If the regulatory action poses no disadvantages to the public or the Commonwealth, please so indicate.

The primary advantage to the public of this action is that the regulation will provide the least possible necessary regulations for assuring safety in the use of industrialized buildings.

There are no advantages to the Department of Housing and Community Development or to the Commonwealth resulting from this action.

There are no disadvantages to the public or to the Commonwealth resulting from this action.

Economic impact

Please identify the anticipated economic impact of the proposed regulation.

Projected cost to the state to implement and enforce the proposed regulation, including (a) fund source / fund detail, and (b) a delineation of one-time versus on-going expenditures	None.
Projected cost of the regulation on localities	None.
Description of the individuals, businesses or other entities likely to be affected by the regulation	Manufacturers of industrialized buildings and consumers.
Agency’s best estimate of the number of such entities that will be affected	100 – 200 manufacturers of industrialized buildings and an unknown number of consumers.
Projected cost of the regulation for affected individuals, businesses, or other entities	Unknown; however updating to newer model codes is generally estimated to only affect the cost of

	construction by a few percent.
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As this regulation is a companion regulation to the other building and fire regulations of the Board, which are concurrently undergoing revision to incorporate the latest nationally recognized model codes and standards, it is anticipated that the Board will receive requests during the public comment period for substantive changes to this regulation. As stated in the Agency Background Document for the NOIRA phase of this action, depending on the nature of comment received, the Board may choose to publish a revised proposed (re-proposed) regulation containing all changes to the original proposed regulation along with an additional comment period.

Alternatives

Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action.

As the use of latest model codes and standards in the IBSR is based on statutory requirements, the agency believes this action to be the least burdensome or intrusive method of meeting the essential purpose of the action.

Public comment

Please summarize all comments received during public comment period following the publication of the NOIRA, and provide the agency response.

Commenter	Comment	Agency response
Not applicable.	Not applicable.	Not applicable.

The Board received no public comment concerning this action during the NOIRA period.

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability.

The Department is not aware of any potential impact of this action on the institution of the family or on family stability.

Detail of changes

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail all new provisions and/or all changes to existing sections.

If the proposed regulation is intended to replace an emergency regulation, please list separately (1) all changes between the pre-emergency regulation and the proposed regulation, and (2) only changes made since the publication of the emergency regulation.

For changes to existing regulations, use this chart:

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
2000 IRC Section R309.2	2003 IRC Section R309.2	Where there is a habitable room above a garage in house construction, the ceiling of the garage must be protected with 1/2 inch gypsum board or equivalent.	Where there is a habitable room above a garage in house construction, the ceiling of the garage must be protected with 5/8 inch Type X (fire resistant) gypsum board or equivalent. Rationale: The model code writing body determined that fire can spread more readily through the ceiling of a garage than through its walls, therefore additional protection is needed at the ceiling level.
2000 IBC Table 601	2003 IBC Table 601	Fire-retardant-treated wood may be used in roof construction in buildings two stories or less in height.	Fire-retardant-treated wood may be used in roof construction in buildings two stories or less in height and in buildings of Type II construction (smaller noncombustible buildings) of any height and in Type I construction (larger noncombustible buildings) where the vertical distance from the upper floor to the roof is 20 feet or more. Rationale: The model code writing body recognized the safety record of fire-retardant-treated wood as an alternative to noncombustible framing (steel and concrete) in these limited applications to provide safe installations at the least possible cost.
N/A	2003 IBC Section 3109.5 and 2003 IRC Section AG106	None.	Both model codes have added a requirement for the use of anti-vortex drain covers or the use of other approved methods for preventing the entrapment of persons at drains in swimming pools. Rationale: Safety is provided for the users of swimming pools at a modest cost.
2000 IBC Section 704.3	N/A	Exterior walls of buildings adjacent to a open courtyard are required to be designed with fire-ratings in certain arrangements.	The requirements for fire-ratings of certain exterior walls adjacent to open courtyards has been eliminated. Rationale: The model code writing body deleted this provision because it was determined there is no need to protect a building from its own parts.
2000 IBC Section 711.3.2	2003 IBC Section 712.3.2	Electrical boxes in fire-rated walls were required to be separated by at least 24 inches horizontally.	An allowance for electrical boxes to be side by side or on both sides of a fire-rated wall without a horizontal separation was added provided a putty pad-type fire-resistant pad is wrapped around the outlet boxes. Rationale: These products have had fire tests performed on them and have been shown to protect the outlets from the spread of fire.
2000 IBC Section 1108.7	2003 IBC Section 1109.7	Platform (wheelchair) lifts are permitted to be substituted for a ramp on an accessible route only	In addition to those areas where already permitted, platform lifts are now permitted to be used in lieu of a ramp or elevator to raised areas in courtrooms and for exterior

		under certain limited conditions.	accessible routes where site constraints make the use of a ramp infeasible. Rationale: The Federal Architectural and Transportation Compliance Board in consideration of new ADA guidelines determined that platform lifts could be used in additional areas to provide accessibility for persons with disabilities.
2000 IBC Section 2406.1	2003 IBC Section 2406.1	Wired glass products are permitted to be used as safety glazing in all occupancies in fire rated doors.	Wired glass products are prohibited for use in Group E (educational) occupancies. Rationale: The model code writing body accepted information by consumers and the glass industry indicating that wired glass poses a safety hazard in school buildings.