Regulatory Analysis for Amendments to the Rhode Island Fire Safety Codes

450-RICR-00-00-1
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Fire Safety Code Board of Appeal and Review
Department of Business Regulation

November 6, 2025

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Executive Summary

The Fire Safety Code Board of Appeal and Review (Board) is statutorily responsible for the adoption of state fire codes.
R.I. Gen. Laws § 23-28.3-3, entitled "Rules and Regulations," provides:

> **(a)** The state fire safety code board has the power to promulgate, amend, and repeal rules and regulations to safeguard life and property from the hazards of fire and explosives consistent with the provisions of the Fire Safety Code, chapters 28.1 through 28.39 of this title, and consistent with the rehabilitation building and fire code for existing buildings and structures, chapter 29.1 of this title. The regulations, amendments, or repeals shall be in accordance with standard safe practice as embodied in widely recognized standards of good practice for fire prevention and fire protection. The rules and regulations promulgated by the board, which are known as the state Fire Safety Code, are in effect in all the cities, towns, counties, and political subdivisions in the state. Whenever the provisions of any other statute or local regulation are more stringent or impose higher standards than the state fire safety code, that statute or local regulations will govern, unless it is not consistent with the state code or contrary to recognized standards or good engineering practices. The board determines the relative priority of the regulations.
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> **(b)** All rules and regulations adopted by the state fire safety code board shall be adopted in accordance with the Administrative Procedures Act (R.I.G.L. 42-35-1 et seq.).
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> **(c)** For the purpose of any public hearing under this chapter, the state fire safety code board has the power to summon witnesses and administer oaths for the purpose of giving testimony.
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> **(d)** The board shall provide for reasonable interpretation of the provisions of this code, and rule on appeals from decisions of the fire marshal.

One of the most unique aspects of the Fire Codes, is that there is a statutorily authorized mechanism for property owners to seek relief from provisions of the fire code by applying to the Board for a variance pursuant to R.I. Gen. Laws § 23-28.3-5. Notably, in addition to granting individual relief to a petitioner, the Board is also authorized to grant blanket variances "when, in the opinion of the fire safety code board, any specific provision of the fire safety code has been rendered obsolete and/or imposes an unanticipated, unreasonable hardship upon the general public, and the board finds that the decision to grant a blanket variance will not conflict with the general objectives of the code. All blanket variances shall only be effective until the next code adoption process by the board." R.I. Gen. Laws § 23-28.3-5(d)(1). This administrative process is unique and helps to avoid litigation on the numerous provisions of these codes and as requirements change when the Board adopts newer versions of the model codes.

The Board is proposing amendments to 4 of the 5 regulations in Title 450. These changes include updating the base code to a newer version of the national base code—updating from the NFPA 2018 family of model codes to the NFPA 2021 model codes. The Board also proposes RI-specific amendments that change the base code to better align with the specific needs of Rhode Island and incorporates necessary blanket variances issued since the current version of the code was adopted in 2021.

- 450-RICR-00-00-1, Fire Safety Codes Sections 1 through 6
    - This regulation sets forth the administrative rules for appeals and hearings before the Board. The Board is amending this regulation to reflect certain administrative and procedural changes made during the past code cycle and to add certain clarifying terms where needed.

- 450-RICR-00-00-7, RI Fire Code
    - This regulation applies to all buildings, processes, equipment, systems and other fire and related life safety situations throughout the state, for new and existing structures. This regulation adopts and modifies the National Fire Protection Association's (NFPA) model *Fire Code*, NFPA 1. The current regulation adopted the 2018 edition of NFPA 1, and these amendments made changes to adopt the 2021 edition of NFPA 1. As a general rule, this code primarily addresses the global areas of property protection, public safety and first responder safety as well as basic safety of building occupants.
- 450-RICR-00-00-8, RI Life Safety Code
    - This regulation applies to all buildings and structures and other fire and related life safety situations throughout the state, new and existing. This regulation adopts and modifies the NFPA's model *Life Safety Code*, NFPA 101. The current regulation adopted the 2018 edition of NFPA 101, and these amendments made changes to adopt the 2021 edition of NFPA 101. As a general rule, this code primarily addresses the safety of building occupants by occupancy type, focusing on egress & evacuation capabilities, construction types and size, and required fire protection systems.
- 450-RICR-00-00-10, Rhode Island Fire Alarm Code
    - This regulation applies to the installation of fire alarm systems. This regulation adopts and modifies the NFPA's model *National Fire Alarm and Signaling Code*, NFPA 72. The current regulation adopted the 2019 edition of NFPA 72, and these amendments made changes to adopt the 2022 edition of NFPA 72 with annexes. It should be noted that it has been the recent practice of the Board to "skip ahead" one cycle of this code from the edition referenced by both NFPA 1 and 101. The reason for this originated in R.I. Gen. Laws § 23-27.3-100.1.5(e) which requires the State Building Code Standards Committee to adopt the "latest" edition of the *National Electrical Code*, NFPA 70 as SBC-5, Rhode Island Electrical Code (510-RICR-00-00-5). Due to the inherent conflicts that arise when two enforcement bodies adopt different editions of the same code, the Board skipped ahead one cycle of NFPA 70 during the adoption of the 2015 editions of NFPA 1 and 101 to align with SBC-5. As NFPA 70 and NFPA 72 are companion codes as it relates to the installation of fire alarm systems, it soon became evident that a new conflict was created as both of these documents are "referenced documents" in NFPA 1 and NFPA 101, now with conflicting editions. To resolve this conflict during the adoption of the current code cycle, the Board "skipped ahead" one cycle of NFPA 72 so that the referenced editions of these two related codes coincide.

The following regulatory analysis is required by the Rhode Island Administrative Procedures Act, R.I. Gen. Laws 42-35-2.9.

Regulatory Development

While constructing the proposed amended regulation**,** the Board considered a range of alternatives, including existing Rhode Island regulations and policies of similar subject matter, departmental experience, and industry best practice. This regulation considered other logistical methods and timeframes of information retention and protection.

Explanation of Significant Changes and Themes

NFPA 2021 Code Cycle: Model Code Development, Adoption Process and Timeline

The NFPA generally revises model codes on a three-year cycle. These code revision processes invite public input and public comment to inform NFPA technical committees, which eventually leads the standards council to issue the new standards. A wide variety of interests—such as enforcers, consumers, regulators, builders, contractors, design professionals, trade associations, manufacturers, standard developing organizations, academia, research and testing labs, and other groups—provide input regarding revisions, which are reviewed by technical committees and adapted into draft standards. These committees gather proposed code changes, consider alternatives, conduct meetings, gather public comment on the proposed changes, prepare further revisions, and eventually publishes the new edition of the model codes.[1]

Jurisdictions considering updating their code to reflect a recently published model or national code must weigh the advantages and disadvantages of doing so. Some states will choose to keep using an older model code, often citing the additional costs that are related to the incremental increases in the stringency of new model code provisions. Alternatively, the benefits of updating Rhode Island's code on a three-year cycle to adopt the next edition of model codes include:

- Keeping the code aligned with advancements in building science and material technology;
- Adapting the codes to reflect causes, effects and responses to national or international major fire and/or loss-of-life events;
- Improving the building quality of construction in the state lifetime through long-term value additions related to construction resiliency and energy-savings improvements;
- Securing additional health, safety, and livability improvements for Rhode Islanders;
- Easing compliance through procedural and administrative changes and remaining in alignment with other jurisdictions that use more recent model codes; and
- Avoiding conflict with other State-adopted codes, i.e. State Building Code, which share many of the same referenced documents.

NFPA is a 150-year-old nonprofit association that today works with "more than 10,000 volunteers" on its "more than 250 technical committees responsible for publishing NFPA codes and standards."[2] NFPA engages in a complex and comprehensive standards development process to update its codes and standards every three to five years.[3]

The NFPA completed the 2021 model Codes in early 2020, following extensive code development that includes a significant amount of public input; intensive technical work on the part of a number of NFPA Technical Committees and Panels; and, ultimately, approval from the NFPA Standards Council.[4] Notably, the Board's Executive Director is a principal member of several NFPA technical committees and participates in the adoption process for changes to model codes. The 2021 editions of NFPA 1 and NFPA 101 were issued with an effective date of August 31, 2020.

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[1] https://www.nfpa.org/Codes-and-Standards/Standards-development-process/How-the-process-works
[2] https://www.nfpa.org/news-blogs-and-articles/Blogs/2024/11/06/history-of-nfpa
[3] https://www.nfpa.org/for-professionals/codes-and-standards/standards-development
[4] Detailed information related to the NFPA standards development process can be found here: https://www.nfpa.org/For-Professionals/Codes-and-Standards/Standards-Development

NFPA technical committees (TCs) start the drafting process by reviewing public inputs received since the last edition of the document was published. This is followed by a First Draft meeting where all input is considered and voted on for acceptance, modification or rejection after which a First Draft is published. This begins a Public Comment stage after which a Second Draft meeting is convened if any public comments are received – in either scenario, a Second Draft is eventually published, and the document then moves on to the full NFPA membership as part of the adoption process.

The General Assembly has mandated the adoption of NFPA 1, Fire Code and NFPA 101, Life Safety Code as the basis for the state's fire safety code. This legislative mandate, dating back to 2003, is the backbone of the current Fire Safety Code.

Following the promulgation of the NFPA model codes, the Board began its review of the model codes as well as Rhode Island-specific amendments thereto; this work encompassed the period 2022-2023. This process included review by the Board members and Executive Director, consultation with the Office of the State Fire Marshal, and inclusion of relevant blanket variances into the next version of the Codes. Generally, the model codes are adopted without modification unless there is a statutory conflict or the identification of a historical pattern of variance requests related to local conditions not adequately addressed or recognized by the model code. The Executive Director reviews any requests for state-specific amendments, considers input from the Office of the State Fire Marshal, and whether more or less stringent requirements are in the best interest of the state. Proposed state-specific amendments are developed by the Board's Executive Director, discussed with the Board Chairperson, and then a proposal is presented to the Board for review, discussion and approval. The Board may consider alternatives to those amendments during its review of the matter in its board meeting, when appropriate to ensure public safety. All Board decisions, including any modifications to the proposal before them, occur during public meetings subject to the Open Meetings Act.

A necessary component of adopting model codes is the recognition that due to advances in technology and analyses of historical catastrophic events, updates are a vital component in balancing the affordability of adopting modern, updated codes and the challenges to survivability if they are not. Whenever the Board recommends state-specific amendments that provide relief or alternatives to the model code requirements, consideration is given to ensure that such changes maintain a comparable level of safety as was proposed in the relevant model code. Given the rigorous code development process undertaken by the NFPA, apart from the state-specific amendments detailed herein, the Board has adopted the 2021 Editions of NFPA 1 and 101, and the 2022 Edition of NFPA 72, inclusive of changes since the prior edition, as written. Now, the Board aims to finalize the adoption of the reference codes, inclusive of Rhode Island amendments, before turning to the upcoming 2024 code cycle review.

Upon the recommendation of the Office of the State Fire Marshal, the Rhode Island Association of Fire Chiefs and the Rhode Island Association of Fire Marshals and the subsequent review of the 2021 Editions of NFPA 1 and 101, and the 2022 Edition of NFPA 72, the Board voted to amend the regulations to adopt these newer [though not latest] editions. It is the goal of the Board to continue with this process and ultimately update and amend the codes on a regular basis.

Why Fire Codes?

In general, state and local governments rely heavily on fire and life safety codes to ensure a baseline level of life safety, resilience to intentional and unintentional fires, and to mitigate the potential damaging effects of a variety of fire-related events on commercial and residential structures. Investment in fire prevention, including the modernization and widespread adoption of fire safety codes across the United States, has expanded in the past several decades; the findings of a landmark 1973 report authored by the National

Commission on Fire Prevention and Control - entitled "America Burning" – focused heavily on reducing losses associated with fires and included a number of specific recommendations related to code improvement and adoption at the national, state, and local levels.[5]

Rhode Island's own history in this area is similarly noteworthy. In the wake of The Station Nightclub fire in West Warwick, RI, in 2003 the Rhode Island General Assembly enacted the Comprehensive Fire Safety Act of 2003 – which reflected, in large part, the findings of the Special Legislative Commission to Study All Aspects of Law and Regulation concerning Pyrotechnic Displays and Fire Safety – itself created immediately following The Station Nightclub disaster.[6]

Most importantly, for the purposes of this analysis, the Comprehensive Fire Safety Act required across-the-board adoption of the NFPA 1 and NFPA 101 model codes, reflected in the statutory requirement now present in R.I. Gen. Laws § 23-28.1-2, et seq. As a practical matter, the General Laws provide that "…The Fire Code (NFPA 1) and the Life Safety Code (NFPA 101) of the National Fire Protection Association, Inc., with annexes, except as updated, amended, altered, or deleted, and by the addition of certain provisions, as indicated in the rules and regulations adopted by the fire safety code board, is hereby adopted as the "Rhode Island fire safety code;"" and, further, that municipal ordinances effectuating alterations to the state code may only exceed (not diminish) the requirements of the state code, and may only take effect upon the approval of the state Board of Appeal and Review. This marked a sea change in Rhode Island's fire code landscape, which previously had been characterized by a patchwork of statutory provisions and local ordinances and did not reflect widespread adoption of national model codes.

Investments in active and passive fire protection – including the development and production of fire grade products, installation of fire safety features in building construction, use of fire retardants, and the preparation and maintenance of code standards – has been demonstrated to significantly reduce the incidence of human loss (deaths and injuries) and property loss associated with fire in the United States. A comprehensive 2017 report published by the National Fire Protection Association found that while expenditures associated with fire protection increased nationally by more than 140% between 1980 and 2014, nationwide *losses* associated with fire decreased by 47.2%. The study explains these trends and "…highlights the importance of savings provided by active and passive fire protection efforts" and, further, that " … a conventional cost benefit analysis may not be practical in the case of fire protection as the potential losses of the resources that are at stake are immense."[7]

Finally, as a normative matter, the timely and expedient adoption of model fire safety codes is a clear benefit to our state's economy in general. Keeping our code structure in line with national best practices and will ensure that our state is competitive within the region and nationally while further strengthening the resilience of our buildings and communities against fire risk and protecting life safety.

Over the years, it has been consistently shown that the results of historical analyses of catastrophic and fatal fire events, evolution in manufacturing and building processes and advancements in technology and the modernization of supplies and materials are major factors is in the development and modification to fire and building codes. These changes are associated by some with increased requirements and by association, cost, however, in many cases the opposite is found to be the case and costs have actually decreased. Costs are

[5] See: https://www.usfa.fema.gov/downloads/pdf/publications/fa-264.pdf
[6] See: https://webserver.rilegislature.gov/PublicLaws/law03/res03/res03069.htm
[7] Total Cost of Fire in the United States. Research for the NFPA Mission, October 2017. See: https://www.flameretardantfacts.com/wp-content/uploads/2020/06/RFTotalCost.pdf Note: This appears to be the most recent update of such a comprehensive study by the NFPA.

entirely site-specific and controlled by choices made by the property owner.

Of no small significance is the robust appellate process that is afforded to all property owners throughout the State in the enforcement of these codes – both the base requirements set forth in the model codes and the attendant local amendments. Any owner aggrieved by the enforcement of these regulations has a readily available and simple process for seeking relief in the form of variances issued by the Board. These variances include extension of time for compliance, alternate methods for compliance and outright relief from compliance. Additionally, any person aggrieved by a Decision of the Board can seek judicial review in the District and Supreme Courts – historically, fewer than 0.25% of all Decisions issued have been appealed, with all being resolved prior to judicial intervention.

Summary of Proposed Amendments to the Existing RICR Fire Code Regulations

In general, the Board has proposed improvements to the formatting of the regulations, most notably in Parts 7 & 8, which will make the state codes more user-friendly for fire and building officials, design professionals and property owners to read in conjunction with the NFPA model codes.

The below chart summarizes the substantive changes to the text of each of the four regulations proposed for amendment by the Board at this time.

Title 450 Part #	Section / Chapter Number	Change Type	Summary of Changes
Part 1	**1.3 and 1.4**	Clean up	Clarified statutory citations.
	1.6	Clean up	Deleted redundant content on the board composition which is a quotation of the statute. R.I. Gen. Laws § 23-28.3-2. Added a cross reference to Part 8 in § 1.6(C).
	1.7	Clean up – This regulation contains administrative provisions for the Board.	• § 1.7.1(E) – This amendment clarifies existing procedure for the submission of appeal applications. No change to the status quo. • § 1.7.1(G) - Amended to match current practice of the authority having jurisdiction. No change to status quo. • § 1.7.2(Y) – Amended based on guidance from the District Court (appellate authority) and the Attorney General's office. No change to current practice as this has not been followed in recent years. Deleting this sentence ensures the finality of Board decisions. • § 1.7.2(AA) – Corrected typo which referred erroneously to Part 7 instead of Part 8. • § 1.7.4(A) – Clarified that any party may request an interpretation of the statutory and regulatory provisions of the fire code, including all the regulations in Title 450, not just Part 7. No change to status quo. • § 1.7.5(D) – Clarified that there are no filing fees for abatements. All filing fees are set forth in statute and there

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			was never a fee for abatement. Adding this sentence to avoid confusion. No change to status quo.
Part 7	**7.1 and 7.2**	Clean up	Added authority and incorporation by reference sections as required by the APA.
	7.3	Clean up	• § 7.3(D) & (E) - For clarity, the Fire Code includes the effective date in the body of the regulation. Given that the completion timeline for this regulation is unknown currently, we have added a placeholder for the purposes of posting the regulation for public comment. After completion of the comment period, the Board will select an effective date in accordance with the APA and insert that date into the regulation and explain it in the CES. • § 7.3.1 - Added explanations for the abbreviations used in this code. No change to status quo.
	Adoption of NFPA 1 Chapters	Clean up	• Chapter sections no longer include separate RICR numbering because the additional numbers were confusing to read and often conflicting with the model code section numbers. After each Chapter heading the regulation now clearly states whether that NFPA 1 Chapter has been adopted in full or with changes. • Throughout the regulation, updates to NFPA 1 model code citations were made for consistency with numbering changes to the 2021 edition of NFPA 1. • Throughout the regulation, typographical errors were corrected, and descriptive words or phrases added or modified for clarity or for consistency with statutory language, without changing the substantive requirements.
	Chapter 1	Clean up	• Added § 1.3.1.1 to clearly define that the scope of the regulations regarding one-, two- and three-family dwellings is limited to smoke alarms and CO alarms only, as set forth in R.I. Gen. Laws § 23-28.1-2(b)(2)(i). • § 1.7.7.6 was amended to reflect current practice. This is just a clarification. No change to status quo. • § 1.11.2.1 was amended to accurately describe the current practice of the OSFM for providing appellate rights notification to property owners. The brochure referred to never existed. No change to status quo. • § 1.11.2.3 was amended based upon a request of the State Fire Marshal. This brochure has never existed. These amendments reflect existing practices. No change to status quo.

Title 450 Part #	Section / Chapter Number	Change Type	Summary of Changes
	Chapter 2	Clean up RI Amendment	• Deleted reference to NFPA 720 because that standard no longer exists as it has been incorporated into NFPA 72 (which is adopted in Part 10 of this Title). • Amended the reference to NFPA 855 to refer to the 2023 edition, which includes provisions for lithium batteries that are not included in the 2020 edition. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders."
	Chapter 10	Clean up	Deleted requirements that have been relocated to Chapter 12 for consistency with NFPA 1.
	Chapter 12	Clean up	Added the content deleted from Chapter 10 with no substantive changes.
	Chapter 13	Clean up/RI Amendment to comply with state statute. Clean up Clean up Clean up	Section 13.3.2.8.1 was deleted because it conflicted with the statutory provisions of RIGL 23-28.6-21 regarding sprinklers. It has been replaced with new amendments to model code sections 13.3.2.6.1 (formerly 13.3.2.8.1) and 13.3.2.7.1 clarifying the statutory requirements for sprinklers in places of assembly, including night clubs. These amendments preserve the status quo. Section 13.3.2.19 was reserved as those provisions relate to one- and two-family dwellings. Pursuant to state law, this Code does not have jurisdiction over one- and two-family dwellings. The model code conflicts with the statutory provisions of RIGL 23-28.1-2(b)(2)(i). The sub-heading "high-rise modifications" was deleted as it was unnecessary and could be confusing. It was inconsistent with the style of these RI specific amendments to include subheadings. Given that they are not use throughout the regulation, it is better to delete it for consistency. Sections 13.6.5 and 13.6.6 are provisions that exist in the 2018 model code. However, they were deleted from the 2021 code. They are noted as reserved here for clarity to indicate that they are not in effect anymore. No change to status quo.
	Chapter 38	Model Code Change	Chapter 38 – Chapter renamed "cannabis" from "Marijuana" with new requirements for CO2-enriched environments. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders."

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	Chapter 39	Model Code Change	Collects all existing references to Wastewater Treatment and Collection Facilities in one place for quick reference. No change to status quo.
	Chapters 39, 46, 47-49, 56-59, and 62	Model Code Explanation	The NFPA reserves chapters in codes when they delete content to avoid renumbering remaining chapters. This keeps the chapter numbers consistent. Over time when new content is added, the NFPA will go back and fill in the previously reserved chapters. That occurred in Chapter 39 for example and Chapter 46.
	Chapter 46	Model Code Change	Chapter 46 – New chapter on Additive Manufacturing (3D Printing), primarily regulating combustible dust. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders."
	Annex G	Model Code Change	The 2018 model code had Annexes A through G. In the 2021 model code, Annex B was deleted, and the remaining Annexes were renumbered. These are just reference materials and not binding. No change to status quo.
Part 8	**8.1 and 8.2**	Clean up	Added authority and incorporation by reference sections as required by the APA.
	8.3(D) & (E), Chapter 1, and Chapter 24, § 24.6.3.1.1.7	Clean up	For clarity, the Fire Code includes the effective date in the body of the regulation. Given that the completion timeline for this regulation is unknown currently, we have added a placeholder for the purposes of posting the regulation for public comment. After completion of the comment period, the Board will select an effective date in accordance with the APA and insert that date into the regulation and explain it in the CES.
	8.3.1	Clean up	Added explanations for the abbreviations used in this code.
	Adoption of NFPA 101 Chapters	Clean up	Chapter sections no longer include separate RICR numbering because the additional numbers were confusing to read and often conflicting with the model code section numbers. After each Chapter heading the regulation now clearly states whether that NFPA 101 Chapter has been adopted in full or with changes. Throughout the regulation, updates to NFPA 101 model code citations were made for consistency with numbering changes to the 2021 edition of NFPA 101. Throughout the regulation, typographical errors were corrected, and descriptive words or phrases added or modified for clarity or for consistency with statutory language, without changing the substantive requirements.

Title 450 Part #	Section / Chapter Number	Change Type	Summary of Changes
	Chapter 2	RI-Specific Amendment	Deleted reference to NFPA 720 because that standard no longer exists as it has been incorporated into NFPA 72. Amended the reference to NFPA 855 to refer to the 2023 edition, which includes provisions for lithium batteries that are not included in the 2020 edition. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders." Refer to Chapter 2 of the model code for the edition year and more detail about any standards and other model codes referenced within the regulation.
	Chapter 3	RI-Specific Amendment	Section 3.4.9. the definition of "Emergency Shelter Occupancy" was amended to clarify when the provisions in Chapter 27 apply. The same language was also added below in Section 27.1.1.1. There is no change to application or enforcement of this law.
	Chapter 3	Clean up	Section 3.4.10 was deleted in its entirety as it was an obsolete definition conflicting with the current definition found in Chapters 16 and 17. With the deletion of this definition, this Code will be consistent with the model code and current DCYF definitions of Family Day Care Home. No change to status quo. Added reference to new section 26.1.1.1.9 which now makes provisions for seasonal camp cabins as a subsection of the Lodging and Rooming House Chapter.
	Chapter 4	Clean up	Chapter 4 – Section 4.6.12.2.1 – Minor amendments were made to this section for clarity and consistency with statutory terms. No change to status quo.
	Chapter 12	Clean up	Sections 12.3.5.1 was modified for consistency with Part 7 and the statutory provisions of RIGL 23-28.6-21. No change to status quo.
	Chapter 12	Clean up	Section 12.4.8.5 was previously deleted as an RI amendment to the 2018 model code. After renumbering by NFPA for the 2021 edition, there was no need to delete that paragraph. Therefore, by deleting the reservation the provision is added back into the RI code. No change to status quo.

Title 450 Part #	Section / Chapter Number	Change Type	Summary of Changes
	Chapter 17	Clean up	Corrected a typo in section 17.6.3.4.4, correctly citing it as 17.6.3.4.5. No change to status quo.
	Chapter 19	Clean up	Section 19.4.3.3 and 19.4.3.4 have been reserved as they related to previous edition requirements whose effective date has since passed making them no longer applicable.
	Chapter 21	Clean up	Corrected a typo in section 21.3.4.5 (1) where a referenced section citation had been inadvertently omitted.
	Chapter 24	Clean up	Section 24.6.1.2 has been changed to correctly identify the reference document. Section 24.6.3.1.1.7 references the changes in edition year of referenced document NFPA 72. Section 24.6.3.1.1.8 was added for clarity and includes language from the current NFPA 72. These paragraphs explain what requirements were in place when the house was constructed.
	Chapter 26	Existing RI-Specific Amendment modification	§ 26.1.1.1.8, an existing RI amendment was modified slightly to increase the maximum size private residence that is subject to this provision from 2500 gross square feet to 3500 gross square feet. Here, the Board previously identified and created a subcategory of lodging and rooming houses for congregate family living facilities. Application of this section is completely voluntary and if the owner chooses not to elect this option, they merely comply with the global requirements of Chapter 26 in their entirety. By increasing the square footage, it provides more relief as larger structures are then able to qualify for the exemption. 3500 square feet better reflects the average size of the homes being used for these facilities, and the increase in the size does not result in any significant risk given the existing requirements included in the exemption. For more information, see the discussion below in the section “Specific Changes Impacting Stakeholders.”
	Chapter 26	RI-Specific Amendments	Section 26.1.1.1.9 adds a new occupancy classification of Seasonal Camp Cabin as a subsection of Lodging and Rooming Houses that reduces the requirements for these smaller, lower-risk structures. Section 26.1.1.1.10 adds a new occupancy classification of Short-Term Rental Unit as a subsection of Lodging and Rooming Houses that reduces the requirements for these smaller, lower-risk structures.

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			Both amendments in this Chapter reflect the incorporation of 2 existing blanket variances issued by the Board. The inclusion of these blanket variances maintains the status quo. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders."
	Chapter 27	RI-Specific Amendment	Section 27.1.1.5 clarifies the code provisions (which are existing state-specific rules because there is no Chapter 27 in the model code) for the temporary use of emergency shelters within existing buildings, like churches and schools, in the aftermath of natural and/or manmade disasters. For more information, see the discussion below in the section "Specific Changes Impacting Stakeholders."
	Chapter 43	Clean up	This chapter had previously been reserved (which means that through a RI amendment the Board deleted that chapter of the model code), and the associated requirements were incorporated into the State Rehabilitation and Building Code for Existing Buildings and Structures [Rehab Code: 510-RICR-00-00-20]. The Rehab Code Joint Committee has found that this code, first adopted in 2002 and without any modifications since, has become outdated and not user-friendly. Accordingly, the Rehab Code Joint Committee directed that all fire components revert back to Chapter 43 of the Life Safety Code (NFPA 101) and that all building components be in accord with the newly adopted International Existing Building Code (Part 7 of Title 510, effective 12/1/2025). The net effect is that the requirements for existing buildings are found directly in Life Safety Code Chapter 43 instead of referencing the Rehab Code. Chapter 43 of NFPA 101 is now unreserved by these proposed amendments and adopted with no changes. The most recent version of the Building Code's Rehab Code in Part 20 of Title 510, effective 12/1/2025, states in § 20.4 that the fire code elements of the rehab code shall comply with Chapter 43 of this code. These modifications do not result in substantial changes to the status quo because most of Chapter 43 contains cross references to existing provisions in other parts of the fire code. Furthermore, election by property owners and design professionals to use the rehab code instead of the current applicable building and fire codes is voluntary. It is a design choice which will likely be driven

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			by the costs/benefits of developing the property under the current codes or the rehab code. Such design choices and code election would be reviewed by the local building and fire code officials during the development and permitting process. It should be noted that most of the so-called F (Fire) elements of the Rehab Code were originally modelled on the provisions of Chapter 43 of the 2006 edition of the Life Safety Code – Chapter 43 was new to the 2006 edition, which was never adopted in RI. When the 2012 edition was adopted, Chapter 43 was reserved as it was not needed due to the existence of the Rehab Code and remained reserved in the 2015 and 2018 editions until this latest revision.
	Annex A	Clean Up	It was clarified that Annex A is adopted but its provisions are modified by specific RI amendments in chapters 16 and 17. These are reference documents only. No change to status quo.
Part 10	**10.1 and 10.2**	Clean up	Added authority and incorporation by reference sections as required by the APA. Updated references to NFPA 72's 2022 edition, rather than the current 2019 edition and noted that this adoption includes the Annexes to avoid conflicts with NFPA 70 and SBC-5.

Specific Changes Impacting Stakeholders

The following is summary of significant state-specific and model code changes that may, upon implementation, result in some costs or benefits. These changes are included in the attached spreadsheet which quantifies any estimated costs or benefits.

In the development of the proposed amendment, consideration was given to: (1) alternative approaches; (2) overlap or duplication with other statutory and regulatory provisions; and (3) significant economic impact on small business. No alternative approach would be as effective and less burdensome as the proposed regulation and no duplication, or overlap was identified based upon available information.

Changes applicable to both Parts 7 and 8

1) **Adoption of the 2023 Edition of NFPA 855 (State-Specific Amendment)** – Lithium Battery Energy Storage Systems Part 7, Chapter 2, and Part 8, Chapter 2.

   The 2021 editions of NFPA 1 (adopted in Part 7) and NFPA 101 (adopted in Part 8) include the 2020 Edition of NFPA 855, Standard for the Installation of Stationary Energy Storage Systems. [This standard did not exist when the 2018 versions of NFPA 1 and 101 were adopted.] Rather than adopt the model rule as written with respect to this newer NFPA 855 standard, the Board has reviewed the 2023 edition of NFPA 855 and has proposed a state-specific amendment to both Parts 7 and 8 to adopt the 2023

Edition of NFPA 855 instead of the 2020 edition because it includes new provisions for the safe storage of lithium batteries.

Costs: As with all building and fire safety codes, there are costs associated with implementing some of the requirements – there are also savings, although perhaps not as evident to the casual observer. If a property owner chooses to build a new energy systems storage facility, they will need to consider the fire code requirements in this standard and ensure that their design complies with these requirements. For example, if they needed type-X fire rated drywall to enclose the battery storage system, that would $0.67 per sq. ft. of dry wall or $500 for a 750 sq. ft. enclosure. While some of these costs might be identifiable as "fixed," the overwhelming majority are impacted by and in fact directly driven by design and implementation choices made by the owner of an affected property or project. These factors include those set forth in the design process such as height & area, construction type and fire protection features – both required and optional. As a result, the costs resulting from these new standards will vary greatly and will only apply to new buildings. Therefore, it is unlikely that there are any significant known costs resulting from this state-specific amendment to existing state and quasi-public facilities.

Benefits: FM (formerly FM Global), a worldwide giant in the insurance industry and in particular, fire safety research, has conducted and is currently conducting exhaustive research into the risks associated with the manufacturing, storage and use of lithium-ion batteries in all facets of daily usage throughout the world.[8] [9] [10] These findings continue to evolve as more events occur, more research takes place and most importantly – codes are updated to reflect what is learned during this process. Given the potential volatility of lithium battery energy storage systems, the safety benefits of these new standards outweigh the potential costs of implementation in their potential to protect both life and property.

Alternative: Here, the newer version is adopted because the Board concluded that the 2023 edition of NFPA Standard 855 better protects the state than the 2020 version. NFPA Standard 855 has only been in existence since 2020. There were no prior editions. The 2024 Editions of NFPA 1 and NFPA 101 have already adopted the 2023 version of Standard 855. Given that we are a code cycle behind and considering the rapid advancement and adoption of this new technology, the Board recommended this amendment to the 2021 editions of the model codes to ensure that more current safety standards are in place in this state.

2) **Part 7, Chapter 13 and Part 8, Chapter 12- Automatic Sprinklers - Bars & restaurants (State-Specific Amendment) -** All new bars and restaurants must be protected with automatic fire sprinklers regardless of the occupant load. (NFPA 1, 13.3.2.6.1. and NFPA 101, 12.3.5.1.) This requirement in both NFPA 1 and NFPA 101 has been deleted because it conflicts with R.I. Gen. Laws § 23-28.6-21. This RI amendment is not the result of any discretionary decision by the Board. It is necessary for compliance with existing statutes, and it maintains the status quo. Both Part 7 and Part 8 have been amended to more clearly reflect RI statutory requirements and now include a cross reference to the applicable law.

[8] https://www.fm.com/insights/lithium-ion-battery-hazards-fm-releases-first-ever-comprehensive-guidance
[9] https://www.fm.com/-/media/project/publicwebsites/fm/files/resources/research-technical-reports/development_of_sprinkler_protection_guidance_for_lithium_ion_basedenergy_storage_systems.pdf
[10] https://www.fm.com/-/media/project/publicwebsites/fm/files/resources/research-technical-reports/development_of_sprinkler_protection_guidance_for_lithium_ion_basedenergy_storage_systems.pdf

Part 7 - Significant changes Between NFPA 1 Model Code 2018 Edition and 2021 Edition

3) **Chapter 13 - High-Rise Sprinklers (change to model code)** - warning signage is now required at all entrances of non-sprinklered high-rise buildings. (NFPA 1, 13.3.2.25.2.4.) A note to the Model Code states: "The signage must be posted at all main building entrances as approved by the AHJ and must read "WARNING: This high-rise building is not protected throughout with an automatic fire sprinkler system." Although the *Code* requires the retrofit of high-rise buildings within 12 years of adoption of this *Code*, it is theoretically possible that some high-rise buildings remain unsprinklered. This signage will alert/inform occupants and first responders of the hazard.

   Costs: This change does not result in a significant impact as all high-rise buildings are already required to be protected by automatic sprinklers as of 1/1/2016, pursuant to the RI amendment to NFPA 1 § 13.3.2.25.2.3 in Part 7. This requirement was adopted in RI in 2004, but the state was given 12 years to come into compliance with this mandate. Given that it has been 9 years since the 2016 statutory compliance deadline, it is unlikely that there are many, if any, unsprinklered high-rise buildings in this state. However, any costs to comply with the signage requirement would be de minimis. A compliant sign, if necessary, could be printed with the existing office equipment (paper, printer, and ink) already in possession of the property owner. Therefore, there would be no significant costs to comply, in the unlikely event that such a high-rise remains in violation of state statute requiring sprinklers in these structures.

   Benefits: There is no harm in adopting this requirement that is consistent with existing RI amendments to NFPA 1, requiring all high-rise buildings to have sprinkler systems. In the case that a high-rise does not have a sprinkler system, the signage requirement puts the public on notice of this potential safety issue in the event of a fire.

4) **Chapter 38 - Cannabis (changed from "Marijuana") Growing, Processing or Extraction[11] (change to model code) –** The 2021 edition of NFPA 1 includes new requirements for CO_2-enriched environments. (38.5.3) The note following § 38.5.3 states: "This new subsection in the 2021 edition provides requirements for carbon dioxide enrichment equipment. Carbon dioxide enrichment equipment is a component of cannabis grow operations, but has the potential to displace enough oxygen in the atmosphere to cause hazards to occupants. This new subsection contains requirements for equipment, gas detection systems including design and activation, pressurization and ventilation, signage, and container refilling."

[11] A note at the beginning of Chapter 38 in NFPA 1 states:

> Chapter 38 was new to the 2018 edition of the *Code*. It was developed in response to a request from jurisdictions that were seeing an increase in facilities processing marijuana, either growing, harvesting, or extracting tetrahydrocannabinol (THC) oils from the plant to use in other marijuana-based products. Over the past few years, the number of states that recognize the legal use of marijuana, on either a medicinal or a recreational level, has increased. As a result, more facilities, either newly constructed or moving into existing buildings, are being used for marijuana production. Prior to Chapter 38, no NFPA code or standard addressed the hazards specific to marijuana production facilities. This chapter addresses the hazards unique to these types of facilities and processes while also recognizing other necessary fire protection measures addressed elsewhere in the *Code*. It is not intended to create a new occupancy; rather, it highlights those requirements necessary for fire inspectors to help ensure the safety of building occupants, property protection, and fire fighter safety where the growing or processing or marijuana occurs.

Costs: If a cannabis grower chooses to use this type of growing environment with extra CO_2, they will need to come into compliance with these fire safety rules. However, this type of grow environment is optional, and there are many other options to grow this product. Like other updates in the 2021 model codes, these changes reflect the rapid growth of this newly regulated and fast-growing industry and relate to general workplace safety standards. Failure to comply with these code requirements could lead to the illness or even death of the employees. While there would be upfront costs to set up the system, all those costs would be entered into voluntarily by the licensees and not because of any regulatory mandate. The cost estimate for this model code change was based on the need to install a number of technical safety features such as solenoid shut-off valves that automatically shut down CO2 systems in the event of high gas detection or other system disruptions. These are available in the retail market for ~$500 each, and we assume conservatively that a 10,000 SF grow that elects to use CO2 in vegetative and/or flower rooms may require up to 10 of these valves.

Benefits: Ensures safety of personnel in these grow spaces. CO_2 is not a fire hazard, but it would cause respiratory problems for the personnel in the space due the lack of oxygen.[12] Therefore, the 2021 code edition has proposed additional safety measures.

5) **Chapter 46 - Additive Manufacturing (3D Printing) (change to model code) –** new chapter and requirements, particularly relating to combustible dust. The note regarding this new chapter states: "This new chapter in the 2021 edition addresses the application, installation, maintenance, and personal protection of occupants that use and are surrounded by additive manufacturing (3D printing). Additive manufacturing is being used in many different types of occupancies, including business, one- and two-family dwellings, and industrial.[13] There are two sets of requirements, one for industrial additive manufacturing and one for nonindustrial additive manufacturing. Definitions for *industrial additive manufacturing* and *nonindustrial additive manufacturing* were added to Chapter 3 via another revision."

   Costs: New businesses starting up a 3D printing facility would have to comply with these new rules. They will need to ensure that the facility has sufficient ventilation equipment to extract the combustible dust particles from the air.

   Benefits: The dust created as a byproduct of 3D printing is combustible and dangerous for people to inhale. These rules ensure that the facility does not create an explosive atmosphere which would put its employees and surrounding neighbors at risk.

Part 8 - Significant changes Between NFPA 101 Model Code 2018 Edition and 2021 Edition

6) **Chapter 7 - Occupant load factor (change to model code) –** replaced special-purpose industrial and storage occupancy occupant load factor from 'NA' to 'Maximum Probable' (MP). (Table 7.3.1.2) The Code defines MP as "the occupant load is the maximum probable number of occupants present at any

[12] "Carbon dioxide poisoning: a literature review of an often forgotten cause of intoxication in the emergency department," International Journal of Emergency Medicine, April 4, 2017. https://pmc.ncbi.nlm.nih.gov/articles/PMC5380556/

[13] Note that while additive manufacturing may occur in one- and two-family homes, that cannot be regulated by this code pursuant to the limitations on the jurisdiction of the Fire Codes set forth in R.I. Gen. Laws § 23-28.1-2(b)(2)(i).

time."

Costs: The costs are minimal if any. These are low-risk industrial and commercial structures.

Benefits: This change ensures that the occupant load is considered when designing egress for new low-risk industrial and commercial structures.

7) **Chapter 8 - Mezzanine area (change to model code) –** A new provision allowing a mezzanine to cover up to one-half the open area of the room in which the mezzanine is located, was added provided that 2 conditions are met: (1) if the building is fire sprinkler protected and (2) all portions of the mezzanines are open to the room in which it is located, other than walls not more than 42 inches high, columns and posts. (8.6.10.2.2). The existing provision in 8.6.10.2.1 of the Code that mezzanines shall not exceed one-third of the open area has not been modified. This new provision merely provides another option where those conditions are met.

   Costs: None. This is an expansion of compliance options for mezzanines and provides new options for builders/designers to use if they comply with the requirements of the Code. If the building owner and their design professional choose the new option which allows up to one half of the area to be covered by a mezzanine, then the additional requirement for sprinklers compensates for any additional risk to life safety resulting from the expanded area of the mezzanine. "Mezzanine" is defined in Chapter 3 of NFPA 101 (Section 3.3.186) as: "an intermediate level between the floor and the ceiling of any room or space." The larger the mezzanine, the more people that could be on that intermediate level and need to evacuate in the event of the emergency. Sprinklers save lives by keeping the fire suppressed and reducing the spread of the fire during an emergency, providing time for those on the mezzanine to use the stairs and exit the building. Therefore, the new option in the model code has considered the risks and added additional compliance requirements to ensure any risks are mitigated. Given that there are multiple design options, any costs to the public will be the result of those design choices and not a result of the adoption of the latest edition of the model code.

   It should be noted that by the very nature of a mezzanine, which is open to the floor area below, the occupant will likely be able to see and be aware of any potential incident below, which is why the model code provides some flexibility. Any mezzanine located in a theater would also be subject to the code provisions for places of assembly.

   Benefits: This new provision provides some additional design options for mezzanines.

8) **Chapter 9 - Two-way communication enhancement systems (change to model code) –** require compliance with NFPA 1221 "Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems" for radio signal strength. (9.15) This is a new provision in the 2021 edition, which contains the following note: "Two-way radio enhancement communication systems for fire department communications are essential for emergency response personnel during fire and other emergencies for the protection of both responding personnel and occupants in the building. This new provision in the 2021 edition requires new systems to comply with **NFPA 1221**, which correlates with requirements in both **NFPA 1** and the *International Fire Code* (IFC)."

   Costs: New buildings (except for 1, 2 and 3 family dwellings) will have to evaluate whether an enhanced communication system is required. If the local fire department's radios will still connect to their dispatcher within the new building, this extra system will not be required. It is only required if the radios will not work in the building. This is usually for large, deep structures made of dense materials

like steel that could block the radio signals. Costs will vary depending upon the local jurisdiction's radio system technology and needs.

Benefits: Ensures the safety of fire department personnel during fire and other emergencies. In large structures, it is essential for the fire personnel to be able to contact each other and their dispatcher, to request help, locate other personnel and victims, and to safely evacuate the building.

9) **Chapter 10 - Mass timber (change to model code) –** refers to 2021 Edition of NFPA 220 "Standard on Types of Building Construction" and permits height increases for mass timber buildings Type IV construction up to 24 stories or 82.3 m in some occupancies. (10.2.4.2)

   Costs: No costs. This is optional and allows for taller structures to be made of wood.

   Benefits: Provides more design options for larger buildings.

10) **Chapter 10 - Outdoor furniture (change to model code) –** where outdoor furniture is placed within 2' of a building or beneath combustible exterior projections or overhangs, it must be either fire sprinkler protected or comply with new requirements. (10.4)

    Costs: Any costs would be minimal and optional as combustible furniture could be moved further away from the building, noncombustible furniture could be selected, or other design options could be considered. Moreover, these rules are for furniture not the structural components of a building, sprinklers, fire alarms, etc. There is no requirement under any code to install outdoor furniture and there are numerous design options available to avoid any additional costs as a result of this model code requirement which increases safety by reducing risks of fire.

    Benefits: Reduces the likelihood that a fire starting on the combustible furniture would spread to the building. There was a fire in Florida that started on the cushions of lounge chair and spread through the sliding door into the structure. This new rule aims to prevent that type of fire risk.

11) **Chapter 10 - Combustible artificial vegetation on roofs & near buildings (change to model code)** – must comply with new requirements. Does not apply to natural vegetation. (10.5)

    Costs: Any costs would be minimal as this relates to design choices. If a property owner chooses to put in artificial vegetation they must follow these rules. But they could select natural plants or make other design choices. These rules are for decorative elements on the exterior of buildings. This is completely optional, and any costs could be mitigated with different design choices. There is no mandate to use artificial vegetation in any design, but if they do, they must comply with these code requirements, which are intended to increase safety by reducing fire risks.

    Benefits: Reduces the likelihood that a fire starting on the combustible artificial vegetation would spread to the building.

12) **Chapter 11 - Highrise buildings generator fuel line protection (change to model code) –** new provisions for protection (1 or 2-hour) of fuel lines supplying generators in high-rise buildings. (11.8.5.4) The note in Code states: "Paragraph 11.8.5.4 is new to the 2021 edition of the *Code*. It requires the protection of fuel lines serving emergency generators in high-rise buildings, which might be needed to supply power to the systems listed in **11.8.5.3.4** during a fire. Failure of these systems due to compromised generator fuel lines could have an adverse effect on occupants' ability to

evacuate and fire-fighting operations. These protection criteria help to ensure that generators will operate for at least one hour where the generators serve other than emergency lighting systems or 90 minutes where the generators serve emergency lighting systems (see **7.9.2.1**)." Section 3.3.37.7 of NFPA 101 defines high-rise building as: "A building where the floor of an occupiable story is greater than 75 feet above the lowest level of fire department vehicle access."

Costs: These requirements will impact the design of new high-rise buildings. This does not apply to existing structures. The requirements may alter the design and might not result in additional costs. Property owners can work with their design professionals to determine the most cost-effective way to comply with this requirement. Depending on the design choice, costs could be minimal. In some cases, the fuel source is close to or within the generator, negating any additional building costs for compliance with this rule.

Benefits: These requirements ensure the continuing function of emergency generators during a fire, providing emergency lighting and other life safety systems for the safe and efficient evacuation of all people and fire-fighting personnel. The taller the building, the more time the occupants will need to exit the structure during an emergency or relocating to an area of refuge.

13) **Chapter 14 & 15 - Educational occupancies/Emergency Drills (change to model code) –** The code currently requires that a schools must have at least 1 emergency drill per month while in session unless not practical due to climatic conditions. This new 2021 amendment allows for up to 2 of those drills to be replaced with an alternate emergency drill (targeted violence/active shooter, or natural hazard (tornado, tsunami, etc.)) with permission from AHJ. (14/15.7.2.4)

Costs: No costs. This change provides schools with some flexibility. If they wish to replace a fire drill with another alternate emergency drill, they can apply to the local AHJ, which would be the municipal fire marshal, for permission.

Benefits: Allows schools some flexibility for their emergency drills.

14) **Chapter 16 - Daycare occupancies (change to model code) –** all new daycare occupancies must be protected with automatic fire sprinklers. (16.3.5.1)

Costs: New daycare building designs will need to include sprinklers, which may increase the building cost per square foot.

Benefits: Fire sprinklers save lives. Time is needed to evacuate the many non-ambulatory children and adults in a daycare center during an emergency. By adding sprinklers, the requirements for fire alarms, egress and construction methods are reduced thereby potentially offsetting the cost of the sprinkler system. For example, a non-sprinklered daycare might have to be built out of non-combustible construction materials (concrete, steel) which would cost more than a sprinklered building that could be made from wood.

15) **Chapter 28 & 30 - Smoke alarms within sleeping rooms (change to model code) –** new apartments and hotel occupancies require additional 520 Hz low-frequency notification signals. (28.3.4.3.2/30.3.4.3.2)

Costs: There is already a requirement in the code for smoke alarms in sleeping rooms. This changes the technology of the audible component of the alarm and only applies to new structures. There may be a

minimal cost for the 520 Hz alarms but there are various options and systems for the builder to choose from.

Benefits: Low frequency signals have been proven to be more effective at waking sleeping persons during an emergency.[14]

Part 8 – State-Specific Amendments to the 2021 Model Code

16) General Information about Chapter 26, "Lodging or Rooming Houses"

Chapter 26 of NFPA 101 applies to lodging or rooming houses, which are "buildings that provide sleeping accommodations for 16 or fewer persons on either a transient or permanent basis, with or without meals, but without separate cooking facilities for individual occupants, except as provided in Chapter 24 [one and two-family dwellings]." NFPA 101 (2021 edition), § 26.1.1.1.

Overtime, the Board has identified various uses of one and two-family dwellings and other small structures that are no longer being used as traditional family dwellings. This chapter contains some state specific provisions for certain facilities which the Board has identified as not squarely fitting into the model code provisions. There are existing provisions for bed and breakfasts and congregate family living facilities (to which there is a minor amendment); and the Board has also added two new provisions, developed first as blanket variances, regarding seasonal camp cabins and short-term rentals as described below.

17) Chapter 26 – Congregate Family Living Facilities (State-Specific Amendment)

The existing version of Chapter 26 in Part 8 contains state-specific amendments to regulate "Congregate Family Living Facilities" which are defined as: "a building or part thereof that contains sleeping rooms where residents share the entire structure and live, cook and function together as a single housekeeping unit. Every 'Congregate Family Living Facility' must further have originated as a private residence, shall be limited to no more than two (2) stories in height and shall not exceed two thousand five hundred (2,500) gross square feet." At the request of the Office of the State Fire Marshal, the Board has proposed increasing the square footage limitation from 2500 gross square feet to 3500 gross square feet to better reflect the housing stock selected for these facilities. No other changes to the existing state-specific amendments related to these facilities were proposed.

Costs: There are no increased construction costs associated with this amendment. This expansion of eligible structures for these existing state-specific amendments better reflects the houses selected to be used for these facilities. Increasing the square footage limitation for these facilities means that single-family dwellings between 2500 and 3500 square will not also be permitted to follow existing, less stringent fire safety requirements under this state-specific exception. However, the Board does not believe that there is an increase in life safety risk resulting from this increase in eligibility for this exception because the existing provisions for these facilities set forth sufficient life safety requirements. The existing state-specific provisions set forth requirements for smoke alarms and carbon monoxide alarms, emergency lighting in corridors/stairways, exit signs and evacuation plans. The requirements increase with more occupants. But as with all structures falling under Chapter 26, the occupancy cannot exceed 16 residents. These substantive requirements sufficiently protect life

[14] "The Basis for Recommending the 520 Hz Fire Alarm Signal"
https://www.sfpe.org/publications/fpemagazine/fpeextra/etarchives3/fpeetissue96

safety for the increased square footage of the structure.

Benefits: This expansion of eligible structures for these existing state-specific amendments better reflects the houses selected to be used for these facilities, helping to ensure the state has a greater supply of safe, available real estate as recovery housing. These provisions are not mandatory. Facility owners can elect to comply with the standard provisions for Lodging or Rooming Houses in Chapter 26 of the model code or elect to comply with the alternative provisions set forth in these existing state-specific amendments. This is an example of the Board considering the existing structures being used as these facilities and ensuring that such facilities are covered under the Fire Safety Code with reasonable regulations.

Alternatives: The Board considered information about the average sizes of these facilities and determined that expanding the provisions to apply to up to 3500 square feet was reasonable, did not increase life safety risks, and better reflected the scope of existing structures being used for these facilities. Alternatives considered for this analysis could include setting the square footage higher or lower than 3500 sq. ft., but the Board considered the recommendation of the State Fire Marshal and agreed that this was the appropriate square footage limitation.

18) **Chapter 26 - Lodging and Rooming House Occupancies (State-Specific Amendment) –** (26.1.1.1.9) This amendment is the result of the incorporation of Blanket Variance 23-02, entitled "Modification to RILSC Chapter 26, Lodging or Rooming Houses to add new classification of Seasonal Camp Cabin."[15] It was approved by the Board on August 22, 2023. This Blanket Variance, like all such variances, was issued after the Board's consideration of the relevant issues and receipt of public testimony during a Board meeting that was subject to the Open Meetings Act.

The Board issued Blanket Variance 23-02 after considering reports from AHJs throughout the country of a growing trend in the utilization of what would traditionally be considered a seasonal cabin-like structure as housing for so-called seasonal campers.

Chapter 24 of the Rhode Island Life Safety Code [RILSC] provides that [o]ne- and two-family dwellings shall be limited to buildings containing not more than two dwelling units in which each dwelling unit is occupied by members of a single family with not more than three outsiders, if any, accommodated in rented rooms. Like bed and breakfasts and congregate care facilities, seasonal camp cabins do not fall into the definition of a one- or two-family dwelling. However, seasonal camp cabins do fall under the definition of Lodging and Rooming houses in Chapter 26 (quoted above in subheading 16).

Accordingly, past (and current) practice has been to classify these seasonal camp cabin structures as lodging or rooming houses in accordance with RILSC Chapter 26.

The Board issued a blanket variance to provide certain relief for these non-traditional sleeping arrangements from the model code requirements in Chapter 26 due to unanticipated and unreasonable hardship upon the general public and based upon a finding that such exceptions did not conflict with the general objectives of the Rhode Island State Fire Safety Code and did not materially

[15] Blanket Variances issued by the Board can be found here: https://fsc.ri.gov/interpretations-and-bvs. To view ALL current Formal Interpretations and Blanket Variances, leave all fields blank and click on "Search". By statute, Blanket Variances are only in effect until the next code cycle adoption where they are either incorporated into the new edition or deleted in their entirety. R.I. Gen. Laws § 23-28.3-5.

increase risks to life safety. The requirements to be eligible for this this exception to Chapter 26 include requirements for smoke alarms, and restrictions which reduce the risk of fires (no cooking or heating systems) and increase the ease of exiting the structure in case of an emergency (one story limitation, only sleeping rooms and bathrooms, at least 2 exits per sleeping room, doors open in direction of egress, etc.). The limitation of 16 occupants is based upon the model code definition of lodging and rooming houses quoted above.

This language was developed by looking at other states with similar provisions, along with the general framework and definition of "lodging and rooming houses" and was tailored to the needs of this state by the Board. It provides an option to either comply with Chapter 26's requirements for Lodging and Rooming Houses or this alternative option set forth in 26.1.1.1.9, which would reduce costs. This section is optional.

Costs: There are no costs to incorporating this existing blanket variance as a RI-Specific Amendment. The blanket variance has been in effect for 2 years and the public has already relied on it. These provisions provide options for the design of seasonal camp cabins to comply with the requirements of Chapter 26 for lodging and rooming houses, or these provisions. There is little additional risk to life safety because of this optional, alternative set of requirements given the small footprint of the structures (less than 1200 square feet for all sleeping rooms), the structure does not have cooking facilities, there are at least 2 exits and it has approved smoke alarms that are interconnected. In such a small structure, the smoke alarms are sufficient to ensure quick egress in the event of an emergency.

Benefits: With this state amendment, sprinklers and fire alarms are not required for these structures due to the low risk and infrequent use. This gives the property owner more flexibility when designing new seasonal camp cabins. The adoption of the blanket variance provisions maintains the status quo.

Alternative: The state could choose not to amend the model code which would require full compliance with all code requirements, resulting is greater building costs. Given the in-depth consideration given to these specific provisions by the Board during the blanket variance adoption process, which included public meetings and testimony, these provisions have been thoroughly vetted and have been shown not to be problematic in the two years since the blanket variance was issued. The adoption of these provisions into the code maintains the status quo. All provisions and requirements for this exception to Chapter 26 are intended to provide an alternative way to maintain fire safety in these small, one-story buildings, with limited use. Property owners can consult with their design professionals on whether they want to design seasonal camp cabins to meet these criteria (smaller structures, occupancy and use limitations), or the general provisions set forth in Chapter 26 of NFPA 101. Depending on the purpose and use of the cabins, property owners may favor one option over the other. The important thing is that the Board is providing some flexibility to property owners while still protecting life safety through the codification of this blanket variance. A lower occupancy could have been selected, but setting the occupancy limit for this exception at 16 is consistent with the occupancy limitation for Chapter 26 of the model code.

Of note is the fact that many of these facilities are in areas that do not provide traditional utilities such as electric service and/or municipal water. These provisions only apply to small, simple structures. The 1200 square foot limitation is consistent with similar rules in New York, helps to keep total occupancy to 16 or less people, and reduces the opportunity to fill extra space with non-compliant hazardous elements (like cooking facilities and space heaters). Given that the maximum occupancy for Chapter 26 is 16 people, the square footage limitation needed to be large enough to provide sufficient space for sleeping and storage of personal items for that number of occupants. Larger than 1200 square feet

may leave room for additional occupants, which would take the cabin outside of the parameters of Chapter 26. Smaller than 1200 square feet may not provide enough space for up to 16 people to safely evacuate.

19) **Chapter 26 – Short-Term Rentals (State-Specific Amendment) –** Section 26.1.1.1.10 adds a new occupancy classification of Short-Term Rental Unit as a subsection of Lodging and Rooming Houses that reduces the requirements for these smaller, lower-risk structures, most notably eliminating the requirement for fire alarm systems and automatic sprinklers. In general, most short-term rentals will fall into the category of single-family dwellings when rented to a single individual or a family. In that case, they are regulated by the fire code as a single-family dwelling. However, when a short-term rental is rented to more than 5 unrelated individuals (i.e., room by room under separate contracts), it changes the use from a single-family dwelling under the fire code to a lodging and rooming house. It is for those limited instances that this exception was developed.

    On August 6, 2024, the Board issued a blanket variance entitled: "Modification to RILSC Chapter 26, Lodging or Rooming Houses to add new classification of Short-Term Rental Unit." The Board found that AHJs throughout the country were reporting a growing trend in the utilization of what would traditionally be considered one- or two-family dwelling units now being rented on a short-term transient basis, i.e., for less than thirty (30) consecutive days. The section only applies to existing one- and two-family dwellings that are now being utilized as short-term rental units and no longer meet the definition of a one- or two-family dwelling due to the increase in the number of unrelated occupants. This Blanket Variance, like all such variances, was issued after the Board's consideration of the relevant issues and receipt of public testimony during a Board meeting that was subject to the Open Meetings Act.

    Chapter 24 of the Rhode Island Life Safety Code [RILSC] provides that [o]ne- and two-family dwellings shall be limited to buildings containing not more than two dwelling units in which each dwelling unit is occupied by members of a single family with not more than three outsiders, if any, accommodated in rented rooms. Like bed and breakfasts and congregate care facilities, some short-term rentals do not fall into the definition of a one- or two-family dwelling due to the number and relationship of the occupants.

    Accordingly, past (and current) practice has been to classify these dwelling units that do not qualify as a one- or two-family dwelling units as lodging or rooming houses in accordance with RILSC Chapter 26. In the absence of the blanket variance, the few short-term rentals which fall under the definition of Chapter 26 lodging and rooming houses would be subject the model code requirements in Chapter 26, such as sprinklers and fire alarms. Therefore, the Board issued this Blanket Variance to allow short-term rentals to stay under the requirements for one and two-family dwellings if they comply with this new section, which contains additional requirements for life safety beyond the limited provisions for traditional one- and two-family dwellings, including: smoke alarms and carbon monoxide alarms must be interconnected; they must provide portable fire extinguishers on each occupied level; and have 2 means of escape for any occupied space above the 2nd floor.

    Note that Blanket Variances considered by the Board during an open meeting in which the public may provide testimony.

    Costs: There are no costs. Since its issuance by the Board in 2024, this Blanket Variance has been law. To retain these provisions, the Board is adding the language of the blanket variance to this regulation as a RI Amendment. This amendment does not change the status quo because the Blanket Variance

has been in place for over one year. This amendment maintains the status quo. Many short-term rental owners have acted in reliance upon this blanket variance and not adopting would cause more problems than retaining it.

Benefits: With this state amendment, sprinklers and fire alarms are not required for these structures due to the low risk and limited usage. This retains the single-family, residential characteristics of the building even though the property is being used for a commercial purpose. The adoption of the blanket variance provisions maintains the status quo.

Alternative: Given the in-depth consideration given to these specific provisions by the Board during the blanket variance adoption process, which included public meetings and testimony, these provisions have been thoroughly vetted and have been shown not to be problematic in the year since the blanket variance was issued. The adoption of these provisions into the code maintains the status quo. All provisions and requirements for this exception to Chapter 26 are intended to provide an alternative way to maintain fire safety in short-term rentals that meet the definition in § 26.1.1.1.10, which have limitations on the size of the dwelling. These are optional provisions. They are not mandatory. Property owners can choose to comply with Chapter 26 or these provisions, if their property falls within the scope of the occupancy limitations. Property owners may further limit fire risks in short-term rentals by prohibiting smoking and other activities in the rental contract.

20) Chapter 27 – Emergency Shelter Occupancy clarification and codification of existing time limitation and Chapter 3, definition of "Emergency Shelter Occupancy" (3.4.9) (State-Specific Amendment)

Chapter 27 is a state-specific chapter that already exists in the current version of Part 8. This chapter applies to the use of existing buildings, such as schools or churches, to provide temporary sleeping space as an emergency shelter in the aftermath of periods of severe weather or other disasters, like hurricanes and earthquakes. This chapter does not apply to the creation of new structures to be used as shelters. This chapter is limited to the use of existing structures that are generally not intended to have people sleeping in them. This chapter sets forth the state-specific rules for these situations to ensure that the fire risks are mitigated when in emergency situations these structures are used for purposes for which they were not designed.

The two amendments to Chapter 27 and its related definition in Chapter 3 (§ 3.4.9) clarify the application of this Chapter and codify the existing 180-day limitation on the use of these structures as emergency shelters. These amendments are for clarification and do not result in substantive changes to the application of Chapter 27.

The 180-day limitation is consistent with the existing code definition for "permanent structure" which is defined in NFPA 101 § 3.3.284.9 as: "a building or structure that is intended to remain in place for a period of more than 180 days in any consecutive 12-month period." However, the code does not define "emergency" or "temporary" as it relates to the time limit on these types of shelters. The Board utilized language from the Open Meetings Act, related to notice requirements for an emergency meeting in R.I. Gen. Laws § 42-46-6(c), where an emergency meeting may be called "when the meeting is deemed necessary to address an *unexpected occurrence that requires immediate action to protect the public*." (Emphasis added.) The Board added the phrase from the Open Meetings Act indicated in italics to clarify the existing definition in § 3.4.9 and provision in § 27.1.1.1.

It is the practice of the Office of the State Fire Marshal to limit such emergency shelters to 180 days. This amendment merely codifies existing practice for clarity. No change to status quo.

Notwithstanding any title applied to a structure of facility intended to be used as a shelter for the unhoused, that is not the intent or permitted application of Chapter 27. Such operations would be routinely classified as to their actual use, i.e., lodging or rooming house or hotel and dormitory.

Analysis

Approach and Methodology

Consistent with normative values, clear economic benefits, and statutory requirements that Rhode Island shall have a fire safety code that incorporates and reflects the most up-to-date model codes, this cost-benefit analysis aims to quantify **both** the Rhode Island-specific amendments to the 2021 NFPA model codes adopted by the Fire Safety Code Board of Appeal and Review and the updates from the 2018 to 2021 NFPA model codes that have a significant impact on construction costs.[16] These amendments that fall within the scope of the analysis are detailed herein and have been deemed to have a material cost or benefit.

For these amendments with a material economic impact, we employ the following methodology to estimate the annual cost or savings to the construction industry of each. (Notably, and in line with ORR and APA requirements, we are isolating these costs and benefits *exclusive of the social and economic benefits of the adoption of modern fire codes*.) An example estimate for a hypothetical change to the fire code known as "Amendment X" is laid out below; this methodology is identical to that used in the accompanying cost-benefit analysis relative to the fire code.

Example: Cost of a Residential Provision (Amendment X)			
Category	**Item**	**Estimate**	**Source**
Percentage Increase in Construction Costs	Cost of Amendment X in Prototype Project	$ 100	*Department Estimate*
	Square-footage of Prototype Project	2,000	*Department Assumption*
	Cost of Provision Per Square Foot	$ 0.05	*Calculation*
	Total Cost of Construction Per Square Foot: Basic Residential	$ 199	*Parameter: Based on ICC Valuation Tables: R-3 Residential average (excludes Type I & II)*
	Amendment X Increase of Cost of Development	0.03%	*Calculation*
Prevalence	Frequency: Likelihood of provision applying to a residential project	25%	*Department Assumption*
RI Construction Output: Residential	Total RI Construction Industry Output (2025)	$ 3,305,555,100	*Parameter: BEA Data*
	Percentage of Construction Output: Basic Residential	32.8%	*Parameter: BEA Data*
	RI Construction Industry Output: Basic Residential	$ 1,085,418,679	*Calculation*
Statewide Impact of Amendment X		**$ 68,304**	*=% Increase to Cost of Development*Likelihood of Application*Industry Output Total*

Cost estimates were generated for provision changes, when deemed possible and appropriate. The cost estimation process includes three primary calculations: the percentage increase in construction costs, the frequency/prevalence of the code change, and the impact on overall Rhode Island construction output. An example of the calculation of a code revision is provided below.

Percentage Increase in Construction Costs

Most of the code provisions analyzed in this report make incremental changes to specific provisions in the code. For any given provision or requirement that has been altered in some form, this analysis estimates

[16] The 2021 NFPA model codes reflect dozens of changes relative to the 2018 codes; though Rhode Island will be incorporating these by reference, they are not a result of specific regulatory decisions made by the Board or the Department and are, therefore, deemed outside the scope of this analysis.

costs by looking at the marginal difference between the current cost of the provision and the estimated cost were the change to be adopted. The cost estimates should not be taken to represent the cost of the provision in totality, because, for the purpose of this analysis, the costs associated with the current code language are fixed.

To generate these incremental percentage changes, the Board based their estimates on material provided by external consultants and other subject matter experts to understand the change in construction costs associated with the proposed revisions to the code. Prototype projects were used to provide structure to the estimation of code impacts around a typical example of a project where the code revision would lead to construction cost differences.

For example, suppose a (hypothetical) revision to the code now requires GFCI outlets to be installed in two common home locations that typically do not have GFCI outlets. Cost estimators would use an example prototype project of a 2,000 square foot home to determine the cost impact per home of these two new GFCI outlets. Since the wiring, outlets, and labor would be installed regardless of the code change, the incremental cost difference would be the difference between two GFCI outlets vs. two regular outlets. Using an example cost difference of $4, the cost of two additional GFCI outlets is $8 per 2,000 square foot home, or $0.004 per square foot.

To determine the percentage increase in the cost of development per square foot, the cost estimates per square foot were divided by the average cost of development per square foot. These estimates were based on values from valuation tables published by the NFPA. This analysis used four different total cost of development per square foot assumptions:

- Residential- Basic
- Residential- Specialty
- Commercial- Basic
- Commercial- Specialty

Frequency/Prevalence Factor

Each provisional change was assigned a ranking that estimated how likely it is that the change would impact a construction project. Identifying prevalence or commonality is critical to understanding the magnitude of effect each provision could have in the state. This factor ensures that the impact of code changes that only apply to rare project types or circumstances are not attributed to all construction, and therefore over-estimate the impact. Conversely, it also ensures the estimates reflect a larger impact for the code changes that affect everyday construction projects.

Since more accurate data from permitting data or other RI data sources could not be provided to estimate the commonality of a code change, the following scale was used to rank the prevalence of a code change applying to a category of construction:

- High
- Medium
- Low
- Rare

These ranks corresponded to percentages that were used to generate the overall cost estimate. A frequency could be applied to up to four of the categories of construction noted in the list above, depending on the relevance of the code change to that type of construction.

Impact on Overall Construction Output

The percentage increases in construction costs and frequency factors were applied to an estimate of overall Rhode Island construction output. This figure represents the assumed statewide cost estimate. Since more accurate data from permitting data or other RI data sources was not available, the construction output estimates were based on national-level data, which were then proportionally applied to the state level in RI. Total RI Construction Industry Output estimates and forecasts were based on national level BEA/Census/BLS data on gross output by industry and other economic indicators and were then distributed to the state level. The overall state-level estimate was then distributed to the four types of construction outlined above using Census Bureau estimates of the Value of Construction Put in Place by type of construction.

Quantifiable Costs/Benefits

Costs and Benefits have been identified and explained herein and quantified below. Overall, these amendments represent some savings each year over the next five years.

Notably, the only proposed Rhode Island-specific deviations from the international model codes with material costs and/or benefits impact Parts 7 & 8 of Title 450. The Board approved Rhode Island amendments to the model codes and has highlighted some model code changes between the 2018 and 2021 editions.

The substantive changes outlined in the chart below, include:

- 6 state-specific amendments
    - 1 resulting in increased costs;
    - 3 resulting in decreased costs; and
    - 2 resulting in no known costs.
- 13 Model Code Changes
    - 6 potentially resulting in increased costs;
    - 2 resulting in decreased costs; and
    - 5 resulting in no known costs.

In total, consistent with the methodology described above, the Board estimates an initial statewide net cost savings of $164,414 associated with these Rhode Island amendments, with an estimated five-year net-present value cost savings of $789,694 over the period 2025-2029.

Itemized Costs and Benefits for State-Specific and Model Code Amendments

Code	Citation	Brief Description (See above for more detailed explanations)	Categorization of Benefits and Themes	Cost Increase/ Decrease	2025 Est. Annual Net Cost (Savings)
Part 7/ NFPA 1 & Part 8/ NFPA 101	Chapter 2(NFPA 1) Chapter 2 (NFPA 101)	**RI-Specific Amendment** Updated reference to NFPA Standard 855 version 2023 (2021 editions of both NFPA 1 and 101 reference the 2020 edition of Standard 855)	New Materials/ Technology	Increase in cost (not a certainty – as with almost all these changes, design and operational options selected by the owner and their design professionals will be the primary determining factor)	$ 580
Part 7/ NFPA 1 & Part 8/ NFPA 101	13.3.2.6.1 (NFPA 1) 12.3.5.1 (NFPA 101)	**RI-Specific Amendment** Deletes new requirement in both codes for automatic sprinklers to be installed in new bars and restaurants	Technical	None - Maintains status quo and enforces current law in RI	$0
Part 8/ NFPA 101	26.1.1.1.8	**RI-Specific Amendment** Increases maximum size of private residence that may be used as a "Congregate Family Living Facility"	Flexibility – can comply with exception or standard provisions in Chapter 26	Decrease in cost. More structures are eligible for this exception.	($22,991)
Part 8/ NFPA 101	26.1.1.9	**RI-Specific Amendment** New subclassification for Seasonal Camp Cabins	Flexibility – can comply with exception or standard provisions in Chapter 26	Decrease in cost	($20,503)
Part 8/ NFPA 101	26.1.1.1.10	**RI-Specific Amendment** New subclassification for Short-Term Rentals	Flexibility – can comply with exception or standard provisions in Chapter 26	Decrease in cost	($459,823)

Code	Citation	Brief Description (See above for more detailed explanations)	Categorization of Benefits and Themes	Cost Increase/ Decrease	2025 Est. Annual Net Cost (Savings)
Part 8/ NFPA 101	27.1.1.1; 27.1.1.5 (see also related definition in 3.4.9	**RI-Specific Amendment** Clarifies meaning of "emergency" and codifies existing time limitation for use of Emergency Shelters	Technical	None. Maintains status quo by codifying OSFM's existing interpretation of this existing state-specific amendment.	$0
Part 7/ NFPA 1	13.3.2.25.2.4	**Model code change** Warning signage required at all entrances of non-sprinklered high rise buildings.	Safety	De minimis cost increase, if any	$0
Part 7/ NFPA 1	38.5.3	**Model code change** Requirements for CO2-enriched cannabis grow environments	New Materials/ Technology	Increase	$27,084
Part 7/ NFPA 1	Chapter 46	**Model code change** New requirements for combustible dust in additive manufacturing (3D Printing)	New Materials/ Technology	Increase	$40,627
Part 8/ NFPA 101	Table 7.3.1.2	**Model code change** Replaced special-purpose industrial and storage occupancy occupant load factor from 'NA' to 'Maximum Probable' (MP).	Technical	None - administrative clarification	$0

Code	Citation	Brief Description (See above for more detailed explanations)	Categorization of Benefits and Themes	Cost Increase/ Decrease	2025 Est. Annual Net Cost (Savings)
Part 8/ NFPA 101	8.6.10.2.2	**Model code change** New design options for Mezzanine area	Flexibility	None, optional provision	$0
Part 8/ NFPA 101	9.15	**Model code change** Compliance with NFPA 1221 "Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems" for radio signal strength	Safety	Increase in cost	$162,506
Part 8/ NFPA 101	10.2.4.2	**Model code change** Refers to 2021 Edition of NFPA 220 "Standard on Types of Building Construction" and permits height increases for mass timber buildings Type IV construction up to 24 stories or 82.3 m in some occupancies.	Increase Permissiveness	Decrease	($24,273)
Part 8/ NFPA 101	10.4	**Model code change** Combustible Outdoor Furniture	Safety	None	$0
Part 8/ NFPA 101	10.5	**Model code change** Combustible artificial vegetation on roofs & near buildings	Safety	None	$0

Code	Citation	Brief Description (See above for more detailed explanations)	Categorization of Benefits and Themes	Cost Increase/ Decrease	2025 Est. Annual Net Cost (Savings)
Part 8/ NFPA 101	11.8.5.4	**Model code change** Highrise building generator fuel line protection	Safety	Increase in cost	$6,935
Part 8/ NFPA 101	28.3.4.3.2 30.3.4.3.2	**Model code change** Smoke alarm notification devices within sleeping rooms of hotels and apartment buildings – change to frequency (sound) of the alarms.	Safety	Increase in cost	$21,417
Part 8/ NFPA 101	14.7.2.4 15.7.2.4	**Model code change** Educational Occupancies - Emergency Drills	Flexibility	None	$0
Part 8/ NFPA 101	16.3.5.1	**Model code change** All new daycare occupancies must be protected with automatic fire sprinklers	Safety	Increase in cost	$104,026

Summary and Conclusion

In addition to the costs and benefits quantified in this analysis, there are further benefits to these code changes that are harder to quantify. Specifically, given the life-safety orientation of a significant number of the code changes itemized herein, it is worthwhile to consider the mortality-reducing effect of these changes as a benefit that should be further balanced against the potential costs. Here, we can consider the value of a statistical life – currently pegged at $9.1M in Rhode Island.[17] As a general matter, the concept of value of statistical life aims to quantify the benefit of policies that improve safety based on society's and individuals' willingness to pay for improvements in safety and corresponding reductions in injury and/or mortality.

Based on the foregoing analysis, we conclude that the economic impact associated with the adoption of the 2021 model code significant changes and Rhode Island amendments has a net present value savings of $789,694 over the 2025-2029 time period—meaning that this code adoption delivers net economic benefits even before accounting for health and safety improvements. Still, applying the Value of a Statistical Life allows us to quantify the human benefits of reduced mortality risks. Since this code adoption is already cost-saving, including VSL demonstrates that the policy is not only economically efficient but also highly beneficial in human terms—since we know that the code adoption proposed here represents a significant improvement in life-safety relative to the current regulatory status quo.

Overall, the Board, in consultation with the Office of the State Fire Marshal, has decreased costs by providing some flexibility with a few state-specific amendments which either clarify existing provisions; make reasonable updates to existing state-specific amendments; and codify current practices and recent blanket variances. These amendments result in simpler, more user-friendly codes, updated to reflect the actual practices in this state and provide a few exceptions. Specifically, the codification of the blanket variances provides a pathway for relief from the standard model code provisions, decrease costs and maintain safety standards. These state-specific amendments reflect a balance between providing relief for a few common matters routinely considered by the Board and maintaining high safety standards.

Therefore, we determine that the benefits of adopting the 2021 code family outweigh the estimated costs of the same and that this supports moving towards final adoption of the proposed 2021 fire codes.

Net Present Value of 2021 Code Cycle Changes

We have attempted to quantify the long-run impact of the proposed changes from 2025-2029. This analysis assumes an annual growth rate in the construction industry of 1.7% in 2025, 2.0% in 2026, and 1.9% over the period 2027-2029 that is consistent with the American Institute of Architects (AIA) July 2025 Consensus Construction Forecast.[18] In addition, it assumes a discount rate (cost of capital) of 4.0% consistent with the rate approved by the Federal Reserve Board in October 2025.[19]

[17] See: https://omb.ri.gov/sites/g/files/xkgbur751/files/2023-12/ORR-Review-Analyzing-Regulatory-Benefits-and-Costs.pdf for a detailed discussion of the concept of Value of Statistical Life (VSL) and the important role it plays in regulatory impact analysis.

[18] https://www.aia.org/resource-center/july-2025-consensus-construction-forecast. This analysis assumes a growth rate of 1.9 % over the period 2027-2029, which is an average of the AIA forecast estimates for 2025 and 2026.

[19] https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20250114a1.pdf

Subject to these assumptions, we estimate the net present value of the specified significant changes to the NFPA model codes and the Rhode Island specific changes to the 2021 fire codes as follows:

Year	**2025**	**2026**	**2027**	**2028**	**2029**
Est. Annual Cost (Savings)[20]	$ (164,414)	$ (167,702)	$ (170,804)	$ (173,964)	$ (177,183)
5 - Year NPV @ 4.0% CoC					$ (789,694)

[20] Positive values (above 0) represent net costs to construction. Negative values (below 0) represent net savings to construction.