

# B1206.2-21

IBC@: 1206.2, 1206.3

Proponents: Oleg Bulshteyn (olegbulshteyn@hotmail.com)

## 2021 International Building Code

Revise as follows:

**1206.2 Airborne sound.** Walls, partitions and floor-ceiling assemblies separating *dwelling units* and *sleeping units* from each other or from public or service areas shall have a sound transmission class of not less than ~~50 where~~ 60 where tested in accordance with ASTM E90, or have a Normalized Noise Isolation Class (NNIC) rating of not less than ~~45-55~~ if field tested, in accordance with ASTM E336 for airborne noise. Alternatively, the sound transmission class of walls, partitions and floor-ceiling assemblies shall be established by engineering analysis based on a comparison of walls, partitions and floor-ceiling assemblies having sound transmission class ratings as determined by the test procedures set forth in ASTM E90. Penetrations or openings in construction assemblies for piping; electrical devices; recessed cabinets; bathtubs; soffits; or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings. This requirement shall not apply to entrance doors; however, such doors shall be tight fitting to the frame and sill.

**1206.3 Structure-borne sound.** Floor-ceiling assemblies between *dwelling units* and *sleeping units* or between a *dwelling unit* or *sleeping unit* and a public or service area within the structure shall have an impact insulation class rating of not less than ~~50 where~~ 60 where tested in accordance with ASTM E492, or have a Normalized Impact Sound Rating (NISR) of not less than ~~45-55~~ if field tested in accordance with ASTM E1007. Alternatively, the impact insulation class of floor-ceiling assemblies shall be established by engineering analysis based on a comparison of floor-ceiling assemblies having impact insulation class ratings as determined by the test procedures in ASTM E492.

**Reason Statement:** According to National Multifamily Housing Council (www.nmhc.org), noise has been identified as a major issue by residents of multifamily residential buildings. In addition, according to Alexandria, VA Office of Housing (Housing | City of Alexandria, VA (alexandriava.gov)), noise transmission is one of the biggest issues for renters in multifamily buildings. The problem is worst in buildings constructed of wood above concrete podiums, and better in steel and concrete high rises. Finally, thousands of resident reviews are available on the internet citing poor sound insulation of multifamily residential buildings including those recently constructed. Some of these reviews have been included as the attachments. Effectively, a lot of shiny-looking substandard housing has been built in Virginia lately. This needs to stop! Virginia renters/condo owners deserve better living conditions!

**Resiliency Impact Statement:** This proposal will increase Resiliency

This proposal addresses one of the Indoor Environmental Quality (IEQ) factors: noise. Reduced impact and airborne noise levels inside the apartments will surely reduce stress and enhance the lives of multifamily building occupants.

**Cost Impact:** The code change proposal will increase the cost of construction

This proposal will increase the cost of construction somewhat, but we are talking about the quality of life issue here. The existing building codes/construction techniques do not seem to result in the adequate level of the sound insulation in multifamily buildings, which is evident by the thousands of noise-related complaints.

### Attached Files

- **review 16 672 Flats.jpg**  
<https://va.cdpassess.com/proposal/951/1198/files/download/556/>
- **review 15 672 Flats.jpg**  
<https://va.cdpassess.com/proposal/951/1198/files/download/555/>
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- **review 1.jpg**  
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# EB502.1.1-21

VEBC: 502.1, 502.1.1 (New),

## New Referenced Standard:

### Chapter 13

(New)

**Proponents:** Kerry Sutton (kerry.sutton@concrete.org); Scott Campbell (scampbell@nrmca.org); Bill Horne (bhorne@ndtcorporation.com); Keith Kesner (kkesner3006@gmail.com); Matt Miltenberger (mattm@vcservices.com); David Whitmore (davidw@vector-corrosion.com); Jonathan Williams (jonathan.williams@easterassociates.com); Eric Edelson (eedelson@edelsonconsultinggroup.com); Jeff Jezzard (jeffj@vector-construction.com); John Catlett (catlettcodeconsulting@gmail.com)

## 2018 Virginia Existing Building Code

**502.1 General.** Structural repairs shall be in compliance with this section and Section 501.2. Regardless of the scope of *repair*, new structural members and connections used for *repair* or *rehabilitation* shall comply with the detailing provisions of the VCC for new *buildings* of similar *structure*, purpose and location.

### Revise as follows:

**502.1.1 Structural concrete.** In addition, assessment, design, and repairs to structural concrete shall be in accordance with ACI CODE 562. Assessment and design of repairs of seismic force-resisting concrete elements that result in changes of strength, stiffness, or ductility from pre-damage conditions shall be in accordance with Section 305.

### Add new text as follows:

#### New Referenced Standard:

#### Chapter 13

#### ACI

#### American Concrete Institute

#### 38800 Country Club Drive

#### Farmington Hill, MI 48331

. ACI CODE 562-21: Assessment, Repair, and Rehabilitation of Existing Concrete Structures - Code Requirements 502.1

**Reason Statement: Concept** - This proposal amendment adds ACI CODE 562-21: *Assessment, Repair and Rehabilitation of Existing Concrete Structures*, to establish minimum requirements for the evaluation, design, construction, repair, and rehabilitation of concrete structural elements in buildings for various levels of desired performance as deemed appropriate for the project. This proposal is intended as a modification to the 2018 Virginia Existing Building Code (VEBC). In addition to improved life safety, the requirements clearly define objectives and anticipated performance for the code official, owners, designers, contractors, and installers. The proposed language is not exclusive as *Section 103.1 General* of the 2018 VEBC allows for alternate design and methods of construction when approved by the local building department. Citing this reference provides the building official a baseline for considering approval of design requirements and methods of construction. Further, the baseline is beneficial for product suppliers, owners, designers, contractors and most importantly the expectation of a reasonable level of safety for those residing and working in the Commonwealth of Virginia. It also assists with meeting the requirements of *Section 102.1 Purpose.*, as it provides for cost effective and timely repair options.

**Scope** - ACI 318 provides specific requirements for structural concrete in the International Building Code, similarly, ACI CODE 562 complements the IEBC by providing specific direction on how to evaluate, design and conduct concrete repairs and how to handle the unique construction problems associated with repairs to concrete elements. This standard provides more in-depth requirements needed by most entities addressing the repair of concrete structural elements than is provided in the IEBC. Further, the standard provides the requirements that bridge the inconsistencies and gaps in acceptable criteria that occur from the two following situations that a designer must solve: 1) repairing a structure according to the original building code used at the time it was built using today's construction methods and materials; or 2) repairing a structure built according to an older building code but repaired according to a more recent building code. ACI CODE 562 includes specifications and requirements for products commonly used for repairs, but not addressed elsewhere in the building codes, including but not limited to fiber-reinforced polymers and polymer concrete.

ACI CODE 562 permits flexibility in evaluation, design, construction and repair materials to provide economies while establishing expected performance for the service-life of the rehabilitation or repairs. Note that ACI CODE 562 does not address the evaluation of lateral-force resisting systems in high seismic areas. Thus, the proposed modification directs the user to the appropriate section of the VEBC, as *ASCE 41 Seismic Evaluation and Retrofit of Existing Buildings* is the appropriate standards as stated in ACI CODE 562.

**Benefits** - There are many benefits that ACI CODE 562 provides for the designer, owner, contractor, material provides, building officials and the citizens residing and working in the Commonwealth of Virginia. A few of these benefits are:

- Provides a level of expectation of life safety to the public in buildings where repairs or rehabilitation is performed on concrete structural elements.

- Provides clearly defined, uniform requirements aimed at extending the service life of existing structures.
- Provides minimum requirements for efficiency, safety, and quality of concrete repair.
- Establishes clear responsibilities between owners, designers, and contractors.
- Provides building code officials with a means to evaluate rehabilitation designs.
- Provides specific repair requirements that often result in less costly repairs compared to repairs required to meet only new construction requirements.
- References standards specifications for materials used in concrete repairs that are not addresses in the code requirements for new construction such as fiber reinforced polymer (FRP) reinforcement and polymer concrete.

**Technical justification** - It is noteworthy that ACI has been publishing and making available guidance documents on evaluation and repair of concrete for more than five decades and still it is reported that more than 50% of all structural concrete repairs are found to fail in 20 years or less and 20% of repairs to structural concrete fail within 5 years. Recognizing this as putting the public at risk, ACI Committee 562 saw the need for and developed the Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures as an ACI standard intended for adoption in building codes. ACI continues to maintain and develop additional resources to support assessment, repairs, and rehabilitation of structural concrete in accordance with ACI CODE 562. Among these are:

- [ACI 563-18, Specifications for Repair of Structural Concrete in Buildings \[LINK 1\]](#)
- [MNL-3\(20\) Guide to the Code for Assessment, Repair, and Rehabilitation of Existing Concrete Structures \[LINK 2\]](#)

These resources are readily available to provide greater understanding of assessment, repair and rehabilitation of concrete structural elements. ACI MNL-3 provides case studies demonstrating the ease of use of ACI CODE 562. Numerous technical notes, reports, guides, and specifications that provide background information and technical support are available through other organizations such as American Society of Civil Engineers, British Research Establishment, Concrete Society, International Concrete Repair Institute, National Association of Corrosion Engineers, Post Tensioning Institute, Society of Protective Coatings, and US Army Corps of Engineers. Many of these organizations' publications related to concrete repair can be found in the Concrete Repair Manual.

**Sustainability** - Reference to ACI CODE 562 in the VEBC will help improve confidence of owners, builders, and developers regarding effective repairs, upgrades, and reuse of existing buildings in lieu of demolition and replacement. Typically extending the life of existing buildings is substantially more sustainable than demolition and new construction. Adoption of ACI CODE 562 by reference is needed to help facilitate efforts that conserve energy and resources while maintaining a minimum level of requirements to ensure reasonable levels of life safety, and welfare are afforded to the public.

**State and Local References** - ACI CODE 562 is already being used in several jurisdictions:

- [2020 Florida Building Code, Existing Buildings, 7th Edition Section 301.3.4. \[LINK 3\]](#)
- [2018 Hawaii State Building Code, Code Item \(53\) Section 3401.6.\[LINK 4\]](#)
- [2017 Ohio Building Code with Aug 2018 Updates & Errata 02-08-19 Section 3401.6. \[LINK 5\]](#)
- [2018 North Carolina Existing Building Code, Section 606.1.1.](#)
- [City of Los Angeles California Design Guide Volume 1 City of Los Angeles Mandatory Earthquake Hazard Reduction in Non-Ductile Concrete Buildings \(NDC\), including Section 4.1 Retrofit Design Process.](#)
- [New York City Department of Buildings cites ACI 562 in BUILDINGS BULLETIN 2017-015. \[LINK 6\]](#)
- [City of Austin, Texas, Design and construction specifications Section 410S. \[LINK 7\]](#)

**Resiliency Impact Statement:** This proposal will increase Resiliency

Use of ACI CODE 562 standard helps ensure that repairs are properly performed and will satisfy an acceptable service life. Without minimum standards, repairs may not satisfy the intent of the code or the expectations of the owners or public. Proper evaluation and repairs will improve resiliency of the building. News coverage demonstrates the potential risk to life safety due to deteriorating concrete and inappropriate repairs. A [news investigation \[LINK 8\]](#) of parking structures in the City of Pittsburg, PA is an example of such coverage.

**Cost Impact:** The code change proposal will decrease the cost of construction

The use of this referenced standard should in many cases reduce the cost of repair. Too often in the process of repair, there is insufficient information to determine acceptance criteria that is amicable to both the owner and the building official. The result is the determination that the repair must meet the latest building code requirements for new construction. This standard increases the options available for repair and provides acceptance criteria necessary to permit these options. A case study that illustrates this point: " ACI 562 has been referenced in expert reports for litigation cases, resulting in significantly reduced financial settlements. Denver-based J. R. Harris & Company recently used the code as a standard in several litigation reports assessing damages in existing concrete structures. As an approved consensus standard, according to American National Standards Institute (ANSI) procedures, ACI 562-13 has been accepted as the source standard to use for damage assessment and repair on individual projects by Greenwood Village and Pikes Peak Regional Building Departments in Colorado. Based on this acceptance, the consulting engineer was able to cite the code in their recommendation for structural remediation and determination of damages. In one case involving rehabilitation work on four buildings with faulty construction, J. R. Harris was able to reduce the repair costs from \$12 million to \$3 million, with a

repair plan based on a lesser of the demand-capacity ratio based on either the original or current building code per ACI 562."

#### **Attached Files**

- **ICRI-562-Code-VA-National-Support-2022.pdf**  
<https://va.cdpassess.com/proposal/936/1172/files/download/545/>
- **ICRI-562-Code-VA-ChapterSupport-2022.pdf**  
<https://va.cdpassess.com/proposal/936/1172/files/download/544/>



CONCRETE REPAIR  
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January 6, 2022

Board of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

RE: Support for Adoption by Reference of ACI 562  
in the Virginia Existing Building Code  
Proposal #936, EB 502.1.1-2021

Dear Board Member:

I am writing this letter as President of the International Concrete Repair Institute (ICRI) in support of approval of adoption by reference of ACI 562-21 *Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures* into the *Virginia Existing Building Code* as presented in the code change proposal submitted by the American Concrete Institute (ACI).

ICRI is the only non-profit organization that is dedicated solely to the repair of concrete structures. ICRI has over 2500 members and 39 local chapters across the United States and Canada, with a local chapter in the state of Virginia.

For the past 33 years, ICRI has developed and promoted best practices for concrete repair and has developed consensus document guidelines for the repair of deteriorated concrete structures. These guidelines have been published and used to result in more durable concrete repairs. It has been proven that poor performance of concrete repairs is a serious issue in the industry, and improvements are needed in concrete repair practices. Several studies indicate that **less than 50%** of concrete repairs perform satisfactorily, posing a significant danger to the health, safety and welfare of the public. This is a tremendous burden on owners, municipalities and the economy.

As a repair industry professional and the President of an organization that represents contractors, design professionals and material manufacturers that are involved in the repair of existing concrete buildings, both I and ICRI as an organization recognize the need for standards that will help design professionals and contractors improve the design, implementation and performance of concrete repairs.

The ACI 562-21 code provides minimal requirements for assessment, design and construction, and implementation of repairs and rehabilitation, including quality assurance requirements, for structural concrete **in service**. ACI 562 encourages evaluation of the structure, and a better evaluated structure is potentially less risky to repair. ACI 562 also requires consideration of durability in design, likely leading to better repair performance and less premature repair failure.

The concrete repair industry utilizes many unique repair strategies. The Code provides latitude and flexibility to the licensed design professional to prepare a design to address the specific issues encountered on an existing building while still meeting the requirements of ACI 562. The ACI 562 code will serve to unify and strengthen concrete evaluation, repair, and rehabilitation projects while accommodating the diverse and unique repair strategies and materials used in the repair industry, making existing structures safer. All of these goals are consistent with the mission of ICRI.

In examining the cost of concrete repairs, the greatest cost to the owner is having to remove and replace previous repairs to a structure due to premature repair failure. I believe the adoption of the ACI 562-19 code has the potential to significantly reduce the long-term life cycle cost of maintaining a structure. I also believe it will provide safer structures with minimal impact on initial cost of repairs.

Any standard that improves the quality of the completed repair work will be a welcome addition to the building code and the concrete repair industry. Use of ACI 562 also contributes to increased sustainability, increasing the probability that a concrete structure will be restored rather than demolished and replaced.

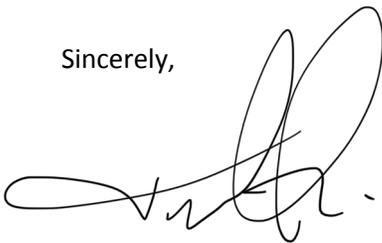
Many leaders in the repair industry support the ACI 562 code and other states, including Hawaii, Ohio , Florida, and North Carolina and jurisdictions have already adopted it. This code complements the *Virginia Existing Building Code* by providing specific direction on how to evaluate and design concrete repairs and how to address the unique construction methods and issues associated with repair. In addition, ACI 562 provides building code officials with a means to evaluate rehabilitation designs.

On behalf of the Board of Directors and members of ICRI, I recommend and hope that the State of Virginia will also realize the benefit of this code and adopt code change proposal into the Virginia Existing Building Code.

If you have any questions regarding my comments or would like to discuss my viewpoints in more detail, please feel free to contact me at your convenience.

Thank you in advance for your time and consideration of this recommendation for support of the proposed building code change.

Sincerely,

A handwritten signature in black ink, appearing to read 'John McDougall', with a large, stylized flourish at the end.

John McDougall, CCSRT  
2022 ICRI President  
919-500-2232  
[johnmcdougall27540@gmail.com](mailto:johnmcdougall27540@gmail.com)



CONCRETE REPAIR  
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January 16, 2022

Board of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

RE: Support for Adoption by Reference of ACI 562  
in the Virginia Existing Building Code  
Proposal #936, EB 502.1.1-2021

Dear Board Member:

Please accept this letter of recommendation from the International Concrete Repair Institute (ICRI) Virginia Chapter Board of Directors in support of approval of adoption by reference of ACI 562-19 *Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures* into the *Virginia Existing Building Code* as presented in the code change proposal submitted by the American Concrete Institute (ACI).

The ACI 562 Code provides important information and direction to design professionals, contractors, materials manufacturers, and testing agencies. ACI 562, which was written and maintained by industry experts, will help the design professionals and contractors improve the design and execution of concrete repairs. This should ultimately deliver safer structures and could also reduce the life cycle cost of concrete structures.

ICRI is the only non-profit organization that is dedicated solely to the repair of concrete structures. ICRI has over 2,500 members and 39 local chapters across the United States and Canada, with a local chapter in the Commonwealth of Virginia. The ICRI Virginia chapter members include Virginia registered Professional Engineers, contractors, technicians, materials manufacturers, and material distributors. We are dedicated to improving the quality of concrete restoration, repair and protection, through education and communication among the members and those who use their services.

Other states and jurisdictions have supported the ACI 562 code and adopted it. The ICRI Virginia Chapter recommends that the Commonwealth of Virginia also realize the benefit of this code and adopt the proposed code change to the Virginia Existing Building Code.

Thank you in advance for your time and consideration of this recommendation for support of the proposed building code change.

Respectfully Submitted,

Kevin Higgins  
ICRI's Virginia Chapter President  
on behalf of the Board of Directors

# EB1102-21

VEBC: 1102 (New), 1102.1.1 (New), 1102.1.2 (New)

**Proponents:** Scott Lang (scott.lang@honeywell.com); Richard Roberts (richard.roberts@systemsensor.com); Robert Davidson (rjd@davidsoncodeconcepts.com)

## 2018 Virginia Existing Building Code

Add new text as follows:

1102 Energy Storage Systems. 1102.1 Lithium-ion technology energy storage systems.

The owner of an energy storage system (ESS) utilizing lithium-ion battery technology having capacities exceeding the values in Table 1207.1.1 of the IFC and that was installed prior to the jurisdiction's adoption of the 2018 or later edition of the International Fire Code shall provide the fire code official a failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis for review and approval.

Exception: Detached one- and two-family dwellings and townhouses

1102.1.1 Early Detection. In addition to the requirements of Section 1207.1.4.1 and 1207.1.4.2 of the IFC, the analysis shall include an assessment of the ability of the installed protection systems to provide for early detection and notification of a thermal runaway event in relation to the ability of emergency responders to safely mitigate the size and impact of a thermal runaway event.

1102.1.2 Corrective action plan. Where hazards are identified by the analysis, a plan that includes a timetable for corrective action shall be submitted to the fire code official for review and approval. The plan shall include actions and system improvements necessary for eliminating or mitigating any identified hazards, including listed methods for early detection and notification of a thermal runaway event.

**Reason Statement:** Note: this proposal has been accepted for the 2024 edition of the International Fire Code.

Though both the 2018 International Fire Code, 2018 NFPA 1 Fire Code received significant enhancements to provide necessary protection levels which were improved further with the provisions of the 2020 NFPA 855 Energy Storage Systems, the 2021 International Fire Code and the 2021 NFPA 1 Fire Code, there are numerous installations that do not meet the new and necessary safety requirements. Even after the printing of the 2018 International Fire Code installers continued to install systems that did not meet the new standard of care, taking advantage of earlier editions of the codes that were still being enforced locally. A glaring example of a system that did not meet the requirements of the 2018 or 2021 editions of the International Fire Code was located in Surprise, Arizona where a thermal runaway event seriously injured 4 members of the fire service.

The purpose of this proposal is to start to address potential protection shortcomings in the design, installation and maintenance of existing energy storage systems employing lithium-ion technology by requiring that a hazard analysis conforming to the requirements of Sections 1207.1.4.1 and 1207.1.4.2 of the current ESS requirements.

Proposed Section 1102.1 sets the scoping to those systems installed prior to the local adoption of the 2018 IFC or later that exceed the thresholds in Table 1207.1.1 which is the trigger for new installations. It utilizes similar language for the hazard analysis as currently exists for new systems at 1207.1.4 for consistency in application. An exception for one- and two-family dwellings and townhouses is included.

Proposed Section 1102.1.1, in addition to the requirements of Sections 1207.1.4.1 and 1207.1.4.2, requires the inclusion of an assessment of the ability of the installed protection to provide an early warning of a thermal runaway event and to provide notification of that event in relation to the ability of responders to safely mitigate the event. Early detection of a thermal runaway utilizing listed methods of early detection, such as sensing cell off-gassing or other compliant methods, is essential to mitigation efforts and the safety of responders.

Proposed Section 1102.1.2 requires the submission of a corrective action plan for the review and approval of the fire code official that includes actions and system improvements necessary for eliminating or mitigating identified hazards.

This retroactive provision is consistent with activities for a similar requirement during the current cycle of NFPA 855 Energy Storage Systems.

**Resiliency Impact Statement:** This proposal will increase Resiliency

This proposal would increase the resiliency of existing ESS by requiring an assessment of potential hazards that could lead to large events destroying the ESS and exposures. Addressing those hazards provides for increased long term resilience.

**Cost Impact:** The code change proposal will not increase or decrease the cost of construction

The code change proposal will not increase or decrease the cost of construction. The proposed language does not address new construction. It addresses the safety of existing systems. Though there will not be a construction increase, there will be an increased operational cost to have the analysis conducted, and a cost to remedy and existing safety hazards typical of any other identified safety issue in a regulated occupancy.

# FP901.4.8-21

VFC: 901.4.8 (New)

**Proponents:** Andrew Milliken (amilliken@staffordcountyva.gov)

## 2018 Virginia Statewide Fire Prevention Code

**Add new text as follows:**

**901.4.8 Maintenance of Walls and Ceilings.** Where required by the installation standard of the fire protection system, all walls, ceilings, and ceiling tiles, shall be maintained in accordance with the applicable building code.

**Reason Statement:** One of the most common violations found regarding fire protection system readiness is the ongoing maintenance of ceilings and walls, specifically ceiling tiles. The horizontal or vertical building construction features required at the time of system installation or modification are absolutely critical to the successful operation of fire sprinklers, fire detection and other fire protection systems. In most cases, the routine inspection and testing standards do not include a specific provision for the maintenance of these features since they are related to building construction and assumed to not be changed. In addition, many fire code officials tend to incorrectly use Chapter 7 (fire rated construction) for enforcement of these concerns when a majority of ceilings and walls in buildings with sprinkler and fire detection systems are not rated. Therefore, it is important to provide a direct solution to fire code officials for the identification and correction of these wall and ceiling deficiencies.

**Resiliency Impact Statement:** This proposal will increase Resiliency

This proposal will increase resiliency by ensuring better tools for fire code officials to identify and ensure correction of essential building construction features that must be maintained. With increased identification, the reliability of these critical fire protection systems will be enhanced and more likely to operate as originally intended.

**Cost Impact:** The code change proposal will not increase or decrease the cost of construction

This proposal is regarding the maintenance of building features, not construction. Therefore, the proposal will not increase the cost of construction and simply ensures that construction features remain in accordance with the applicable building code.

# FP901.6.3.2-21

VFC: 901.6.3.2 (New)

**Proponents:** Andrew Milliken (amilliken@staffordcountyva.gov)

## 2018 Virginia Statewide Fire Prevention Code

**Add new text as follows:**

**901.6.3.2 Annual Inspection Tag or Sticker.** *Upon completion of an annual inspection or test required by 901.6.1, an inspection tag or sticker shall be attached to each fire protection system near the main control valve, main panel, or other such appropriate and visible location as determined by the fire code official. The annual inspection tag or sticker shall contain the following information:*

1. *The name of the licensed agency and individual performing the work;*
2. *Date of inspection or test;*
3. *Type of inspection or test; and*
4. *Result of the inspection or test (Passed or Failed)*

**Reason Statement:** With the increase in electronic records and inspection reports, it is becoming increasingly uncommon for the status of critical inspections to be readily apparent for review or identification by owners, occupants and fire code officials. Many if not most fire protection systems companies already provide such tags or stickers on a routine basis. This requirement would ensure that all critical fire protection systems are marked on-site as to their latest inspection status. Many other states and jurisdictions have similar requirements or policies. This particular proposal follows decades-old language used in the Ohio Fire Code. This will not be a substantial change as many fire protection industries already comply with this requirement but it ensures a uniform standard for all types of fire protection systems.

**Resiliency Impact Statement:** This proposal will increase Resiliency

This proposal will increase resiliency since it will provide that all fire protection systems are marked to indicate their latest inspection status. This will increase awareness regarding the reliability of these systems and the facilities and occupants they protect.

**Cost Impact:** The code change proposal will not increase or decrease the cost of construction

This proposal relates only to maintenance and inspection of existing fire protection systems, not construction. In addition, many fire protection industries already provide such an inspection label.

# FP1201.3-21

VFC: 1201.3 (New)

**Proponents:** Andrew Milliken (amilliken@staffordcountyva.gov)

## 2018 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**1201.3 Mixed Systems.** The aggregate nameplate kWh energy of all energy storage systems in a fire area shall not exceed the maximum quantity specified for any of the energy systems in the applicable building code and approved by the building official. Where required by the fire code official, a hazard mitigation analysis shall be provided and approved in accordance with Section 106.3 to evaluate any potential adverse interaction between the various energy systems and technologies.

**Reason Statement:** This proposal follows the model code by removing the deletion proposed in the VSFPC base document regarding not exceeding the maximum allowable quantities of energy storage systems. Similar to hazardous material requirements for maximum allowable quantities, this section provides the fire code official to ensure that the quantity of energy storage systems is not exceeded, even when mixed technologies are used. It also restores a reference to the fire official being authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues in accordance with local policies

**Resiliency Impact Statement:** This proposal will increase Resiliency

This proposal increases resiliency in that it improves the correlation between the VSFPC and the applicable building code for energy storage system requirements.

**Cost Impact:** The code change proposal will not increase or decrease the cost of construction

The proposal is regarding operational requirements, not new construction. Therefore, it will not increase or decrease the cost of construction.