

General Stakeholder Workgroup Meeting Summaries

March 1-9, 2022

March 1, 2022 - VCC Proposals

1. B310.6-21
2. B432-21
3. B918-21
4. B1020.2.1-21
5. B1206.2-21

March 2, 2022 - VEBC Proposals

1. EB102.2.2-21
2. EB502.1.1-21
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1. FP901.6.3.2-21
2. FP901.4.8-21
3. FP1201.3-21

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1. RB324-21

March 9, 2022 - Trades Proposals

1. P1003.3.2-2

General Stakeholder Workgroup Meeting

March 1, 2022 9:00 a.m. – 11:00 a.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc/>

VCC Proposals

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: *State Building Codes Director, State Building Codes Office (SBCO)*

Richard Potts: *Code Development and Technical Support Administrator, SBCO*

Paul Messplay: *Code and Regulation Specialist, SBCO*

Florin Moldovan: *Code and Regulation Specialist, SBCO*

Travis Luter: *Code and Regulation Specialist, SBCO*

Jeanette Campbell: *Administrative Assistant, Building and Fire Regulations (BFR)*

Group Participants:

Andrew Milliken: *Stafford County Fire and Rescue, Representing himself*

David Beahm: *Warren County*

Kenney Payne: *Representing himself*

Kerry Sutton: *American Concrete Institute (ACI)*

Oleg Bulshteyn: *Representing himself (as a renter in VA) author of proposal B1206.2*

Peter Broadbent: *Virginia Cable Telecommunications Association (VCTA)*

Robby Dawson: *National Fire Protection Association (NFPA)*

Ron Clements: *Chesterfield Building Official*

Scott Lang: *Honeywell Fire*

Sean Farrell: *Prince William County (also VBCOA) BHCD member, but not representing BHCD*

Steve Shapiro: *Apartment and Office Building Association (AOBA), Virginia Apartment Management Association (VAMA)*

Also in Attendance:

Nolie Diakoulas: *Convert Solar*

Richard Roberts: *Honeywell*

Welcome:

Paul Messplay: Gave a brief tutorial about how to use the Adobe Connect meeting space features.

Jeff Brown: Welcomed the participants to the VCC Workgroup meeting, and gave an overview of the 2021 Code Development Cycle, using a slideshow presentation attached as part of the meeting documents.

Discussion covered the following points:

- DHCD staff introduced themselves.
- The 2021 code development cycle and Study Group, Sub-Workgroup and General Workgroup meeting flow summaries.
- The most notable change from prior years is that proposals will only be accepted during the proposal phase, but not during the final phase.
- Overview of the cdpVA and DHCD websites, including links to documents used during the cycle.
- Review of General Workgroup meeting agendas, meeting dates and voting processes.
- The main purpose of the General Workgroup meetings is to vote on the proposals in the agenda. The following voting options were reviewed: consensus for approval, approved as modified, disapproval, non-consensus, carry over, and withdrawn.
- Meeting summaries, proposals and voting results will be prepared and submitted to the Board of Housing and Community Development for final review and decision.
- The agendas with proposals are sent out a few weeks in advance of the meetings for individuals to review the information prior to the meetings. It is recommended that interested parties review and discuss proposals with proponents prior to meetings, in order to keep the meetings moving along to the voting phase.

Kenny Payne: Asked if Jeff will give the same introduction and summary at each Workgroup meeting.

Jeff: Yes, at least for the first cycle of meetings in March.

Participants introduced themselves, and who they were representing.

Proposals:

Jeff: Will introduce each of the proposals. If the proponent is on the call, he will turn the microphone over to them to introduce the proposal.

B310.6-21

Ron Clements: This proposal shortens the trail to get to the scoping requirements for certain residential structures without having to refer to other code books. It deletes the reference to IRC Section 103.4.5 for scoping and puts it into Section 310.6 of the VCC. It also cleans up the language in Section 310.6 to include all of the scoping listed in 310.6.1. Basically, the code was cleaned up to read easier in one location, without reference to other codes.

Kenny: Does VCC 103.4.6 become #5?

Ron: Yes.

Kenny: Proposed consensus for approval.

Sean Farrell: VBCOA supports this proposal in full.

Jeff: Based on group votes, it will be marked as Consensus for Approval.

B432-21

Andrew Milliken: New section for Chapter 4, as a result of a new chapter in IFC for plant processing and extraction facilities. The construction language that was in the new IFC chapter has been removed from the SFPC, leaving no reference to get from the VCC to the IFC. This points back to Chapter 39 of the IFC.

Sean: Typically 307.1.1 references the IFC if it's not H class, for storage battery systems, aerosol product storage, stationary fuel cell power systems, etc. Chapter 4 for special occupancies has other considerations to be reviewed and is usually not a direct link to the IFC. This might fit better in 307. He asked what Andrew and the group members think?

Andrew: There are sections in Chapter 4 for high-piled storage and other requirements. He thinks this could fit in either section, and he doesn't have a preference either way.

Kenny: Is neither for nor against. He doesn't think there is any other chapter or section with just one line or sentence. There's usually more detail, which lends itself more to chapter 3 as Sean said.

Ron: These are not always high hazard, so chapter 4 is appropriate. Perhaps 414 is more appropriate.

Sean: Section 307.1.1 says other than group H, which is where we bring in the direct link to the IFC for all uses that are not group H.

Jeff: Is the intent to capture the facilities that might be in the H use group, and ensure IFC compliance, or is it to capture those that may not be group H, but still have IFC requirements.

Andrew: More likely the latter. In most cases, they are not in H and would fit in the 307.1 scenario.

Kenny: Would it become # 19 in 307.1.1, or might it fit in with another number or as a sub of another number?

Andrew: Typed in the comments box and also verbally proposed to move it to 307.1.1(19)

Jeff: Voting to move to 307.1.1 with the same sentence – installation shall comply with chapter 39 of the IFC.

Sean: If high hazard, it would be captured in 307.1, but if not high hazard, it would be captured in 307.1.1.

Jeff: CAM to move to 307.1.1(19) to reference the IFC for non-H use extraction facilities.

Steve Shapiro: 307.1.1 starts by saying 'stores uses or handles hazardous materials'. Are we implying these plants are hazardous? Items 1-18 are all hazardous.

Andrew: The plants are not hazardous, but the processing and extraction processes contain hazardous materials.

Jeff: If it's moved to #19, it says it is not group H, instead of saying 'where it's not a group H'. Are any of these facilities not to be classified as group H? Typically, the other examples have a limit. Number 1 says that structures occupied for application of flammable finishes, provided that the areas comply with 416 fit here because they are not high hazard.

Sean: Adding a note that says it doesn't exceed MAQ tables would work.

Kenny: Is there any value to bringing in what chapter 39 says? This is just talking about installation, not construction. Or does chapter 39 include construction as well?

Jeff: asked Andrew to clarify the intent.

Andrew: The intent is to capture construction provisions. Most are installation of equipment, and not just construction, but this would encompass both, including chapter 39 construction provisions.

Ron: Looking at 39, he still leans towards...the purpose of 307 is to determine a classification. This section is really about how to handle the equipment and safety and gas-detection systems, regardless of occupancy. He is leaning toward chapter 4 rather than 307. He is not opposed, no matter where it is placed.

Kenny: Last cycle, there was a push to remove as much of the construction requirements from the IFC as possible. If this is involved with construction, would it be appropriate?

Jeff: He thinks its fine to reference IFC, because the building official would use the IFC chapter for the design and instruction of the plant.

Sean: There are exceptions as direct pointers to the IFC, as well as caveats to the MAQ tables, so he does think this section covers the unknowns. To Kenny's point, they didn't remove construction provisions from the IFC, they were removed from the SFPC. Any links to scoping here go to the IFC.

Steve: Agrees with Ron, that Andrew located this correctly in 432. If there were hearings, and this discussion came up, it would be tabled. It seems to need a harder look to identify all of the implications.

Jeff: It's up to Andrew if he wants to leave it in 4, move it to 3, or hold off on the proposal until the next meeting.

Ron: He doesn't see anything in Chapter 39 that prohibits a group H occupancy, so if it's only in 307.1.1 for non-group H facilities, how would someone with a group H extraction facility get to chapter 39?

Kenny: Corrected himself, section 425 has only one sentence pointing to NFPA 99, which is a precedent for this approach.

Sean: He's not opposed to placing it in chapter 4, but he's concerned about setting a precedent that would bring all chapters of the IFC to chapter 4 as special occupancies.

Andrew: He did look at various references, and does not just want to continue adding to chapter 4, but this seems to be unrepresented. He doesn't have a placement preference, but would like to have consensus either way.

Kenny: In the VEBC change of occupancy, there was 1 section that made reference to chapter 4 of the IBC, but the initial version listed the special occupancies in that one section. Would it be appropriate to create a chapter 401.2, which lists things like this in one line item?

Jeff: If the proposal stays as-is, would there be an objection? No responses.

Jeff: Based on group voting, this will be marked as consensus as modified (CAM) to read "design, construction and installation".

{BREAK – 10:18 – 10:23}

B918-21

Jeff: As Richard is still having mic trouble, Scott Lang will present this proposal, which was discussed in the IBEC study group.

Scott: This proposal seeks to reference the new NFPA 1225 (a combination of NFPA 1061 & 1221) and also reference the UL 2524. This would improve the safety and reliability of IBEC systems and set concrete objectives for signal strength within the standard.

Jeff: This was discussed in the IBEC Study group. One proposal coming out of the group will reference the IFC, which in turn references NFPA 1221 and UL 2524. It was decided to reference the IFC and not NFPA 1225 yet, since it's new and not in the IFC yet. Another proposal coming also gives the same references and also addresses responsibility for the systems.

Steve: A comparison was made between NFPA 1221 and NFPA 1225 by one of the study group members. Based on that comparison, there was not a big difference between the versions. It was decided as Jeff said, to reference the IFC and NFPA 1221.

Jeff: Richard Roberts typed in chat that he supports the direction of the Study Group, and Scott and Richard said they would withdraw this proposal.

Jeff: Proposal Withdrawn

B1020.2.1-21

Jeff: This proposal is to remove Section 1020.2.1 of the VCC. It references 3006.2.1 in the VCC which is already deleted.

Sean: This section isn't in the 2018 code.

Jeff: This is in the 2021 IBC and would carry to the VCC if not eliminated.

Kenny: Was there a previous proposal to delete it from the VCC? Could it be that it keeps getting deleted from state and reintroduced by national?

Jeff: That isn't the case here. It seems like this one was relocated from someplace else in the IBC.

Kenny: VCC section 3002.1.1 discusses enclosures as required by chapter 7. There would be a disconnect if 1020.2.1 was left in.

Ron: It looks like this section was added to the 2018 IBC as 1020.1.1 and renumbered. Since 3006.2.1 doesn't exist, it seems like this is an appropriate code change regardless.

Jeff: This proposal is consensus for approval (CA), since there's no opposition.

B1206.2-21

Oleg Bulshateyn: The purpose of this proposal is to improve the sound insulation in multi-family residential buildings. In his experience, and according to his research and reviews, what is there now is not adequate.

He included a document which cited several reviews. The simple language in the proposal says that the sound insulation in floor to ceiling assemblies needs to be increased.

Steve: Is opposed. He doesn't see any science that justifies the specific increase indicated.

Sean: Asked if there was national research done. It doesn't seem that VA is unique. He asked if Oleg tried to get this done at the ICC level.

Oleg: Submitted a proposal to the ICC, but it was after deadline, so it's not in the current update cycle. He knows that some municipalities have more stringent requirements than Virginia. There are thousands of complaints and reviews, and he thinks something needs to be done, as it's a public health issue. He moved into a brand new luxury apartment building in Virginia in 2014. There was too much noise bleeding through into his unit, especially from the unit above his. He says that the noise was so bad that he was forced to move out.

Kenny: Asked if there are any proposals being submitted to the 2024 code cycle? He asked if this could be handled from a zoning standpoint. He asked if Oleg tried to address this via zoning, instead of the building code.

Oleg: He says it's too widespread for that. He said that people who lease don't know what to expect when they move in as far as sound. This has been a major problem. There is substandard multi-family housing in Virginia, and it is not easy for people to move out and find more acceptable housing. If everything is built to the lower standards, there's nowhere for people to move anyway.

Kenny: Asked Oleg if he knows specifically what it would take (materials and installation) and what it would cost to make the change he proposed.

Oleg: He is not a design professional. He is speaking on behalf of himself and others as an end-user. He says he is one voice speaking unofficially on behalf of thousands of others.

Kenny: Asked about the specifics of going to 55 and 60 insulation ratings. How would they know if that increase would solve the problem?

Oleg: Maybe this is a starting point to raise awareness of the issue, to start a discussion. He doesn't know the specific numbers. There could be research done to determine the values.

David Beahm: He said Oleg spoke about sound concerns, and that he also spoke about "things falling off walls". It seems to him that there are two separate issues; one about sound and another about building design. He also wondered if there is another proposal about building design.

Oleg: Does not have a separate proposal for building design. He says this proposal addresses "airborne sound" in 1206.2 (things falling off the walls) and "impact sound" in 1206.3 (floor to ceiling assemblies).

David: Opposes this proposal as it stands.

Kenny: Does Oleg know what the sound was that knocked things off the wall?

Oleg: His major concern is the impact of sound and insulation. He didn't include things falling off walls in the proposal, he only used that as an example in this discussion. In his case, it was mostly the sounds of neighbors located upstairs from him. He said again that the noise caused him to leave his apartment, but there are still many people experiencing too much noise in apartment dwellings.

Jeff: Applauded Oleg as a citizen bringing it forward with no construction experience. He hopes the discussion feedback was helpful. The vote of the Workgroup will be brought forth to the Board of Housing.

Jeff: Asked if anyone on the call would support the proposal?

Jeff: This proposal was voted as CD – consensus for disapproval.

Next Steps:

Jeff: Meeting summaries for all the Workgroups will be posted in cdpVA in a few weeks. The next VCC meeting will be April 2. The cutoff to submit proposals for that meeting is March 11. The final cutoff to submit proposals in this cycle is May 1 – there will be no other proposals accepted after that date. All proposals considered by the Workgroups will tentatively go to the BHCD in September. He thanked everyone for their participation.

General Stakeholder Workgroup Meeting

March 2, 2022 9:00 a.m. – 10:44 a.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc/>

VEBC Proposals

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: *State Building Codes Director, State Building Codes Office (SBCO)*

Richard Potts: *Code Development and Technical Support Administrator, SBCO*

Paul Messplay: *Code and Regulation Specialist, SBCO*

Florin Moldovan: *Code and Regulation Specialist, SBCO*

Travis Luter: *Code and Regulation Specialist, SBCO*

Jeanette Campbell: *Administrative Assistant, Building and Fire Regulations (BFR)*

Kyle Flanders: *Senior Policy Analyst, Policy and Legislative Office*

Group Participants:

Andrew Milliken: *Stafford County Fire and Rescue, Representing himself*

Dave Fuller: *International Concrete Repair Institute (ICRI)*

Eric Edelson: *Edelson Consulting Group, American Concrete Institute (ACI)*

Keith Kesner: *CBM Engineers, ACI*

Kenney Payne: *Representing himself*

Kerry Sutton: *American Concrete Institute (ACI)*

Peter Broadbent: *Virginia Cable Telecommunications Association (VCTA)*

Randy Grumbine: *Factory-Built Housing, Virginia Manufactured and Modular Housing Association (VAMMHA)*

Richard Roberts: *Honeywell Senior Manager*

Robby Dawson: *National Fire Protection Association (NFPA)*

Ron Clements: *Chesterfield Building Official*

Sarah Thomas:

Scott Lang: *Honeywell Fire*

Sean Farrell: *Prince William County (also VBCOA) BHCD member, but not representing BHCD*

Welcome:

Paul Messplay: Gave a brief tutorial about how to use the Adobe Connect meeting space features.

Jeff Brown: Welcomed the participants to the VEBC meeting, and gave an overview of the 2021 Code Development Cycle, using a slideshow presentation attached as part of the meeting documents. Discussion covered the following points:

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- Overview of the 2021 code development cycle, including Study Group, Sub-Workgroup and General Workgroup meetings.
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- Meeting summaries, proposals and voting results will be prepared and provided to the Board of Housing and Community Development.
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Participants introduced themselves, and who they were representing.

Proposals:

EB102.2.2-21

Ron Clements: Andrew Milliken submitted a code change proposal last cycle to add section 302.2.1 to the existing building code which addresses repair or replacement of smoke alarms. Section 302.3 in the 2018 VEBC has requirements for the repair or replacement of smoke alarms, which would be lost when utilizing the R-5 exception in 102.2.2. Therefore, the language in 302.3 has been copied and added as an exception to 102.2.2 to mitigate this breakdown.

Robby Dawson: Could this allow or imply that a hard-wired interconnected smoke alarm could be replaced with a battery-only device in a house?

Ron: Existing hard-wired devices would still have to be replaced with hard-wired devices.

Richard Roberts: With Honeywell and representing the National Electric Manufacturers Association (NEMA) on this issue, is opposed to requiring solely battery operated smoke alarms that are sealed 10-year batteries. There are published statistics stating that a good percentage of these 10-year batteries aren't working in 10 years. Some of the newer technologies, such as the low frequency 520 hertz audible alarm signal helps to wake more people, including groups at higher risk. NEMA is generally opposed to technology-specific mandates. He would prefer to see "repair or replacement of smoke alarms that are solely battery powered" in order to mandate the use of 10-year batteries.

Kenney Payne: This code change is only here to give clarity, or fill a gap. It does not really make a change. He has a concern that opposition to a change which only corrects an existing code, or fills a gap should not happen in these meetings. A disagreement with the actual code (instead of the clarification) should be brought up in separately. He raised this issue during the last cycle as well, and he would like DHCD to address this point. He also thinks this proposal should move forward, but any opposition to the code itself should be addressed in another proposal.

Jeff: DHCD allows everyone to comment as they see fit. Notes are captured on everything, in order to provide a full and clear picture of the discussion in the summary report given to the Board of Housing and Community Development.

Andrew Milliken: This would not require a hard-wired device to be replaced by a battery operated device.

He agrees with Kenney that the intent is only to fill a gap, not make a change and he doesn't think the content of the code itself should be discussed.

Jeff: To clarify, there was a proposal approved last cycle in another section in the VEBC, which was intended to require 10-year sealed batteries in all battery devices. Ron discovered that it may not have covered all occupancies, and so he is proposing to copy that language here in order to include R-5 occupancies.

Richard: Thanked Kenney and Andrew for pointing out the requirement in the other section. He put a note in the chat:

"A 2015 NFPA Study titled "Smoke Alarms in US Home Fires" reports that 47% of the 601 10-year battery smoke alarms installed in 427 homes had dead batteries."

Sean Farrell: VBCOA supports this. Section R314.6 in the VRC does recognize 10-year battery operated devices.

Kenny: Thinks this may be non-consensus because there was an objection. If the other code section remains, then this one is required to fill a gap. He asked Jeff if everything would be captured in the summary for the BHCD.

Jeff: Yes, notes will be captured from what everyone has said. He did ask Richard to verify if he was in agreement or not in agreement to approve the proposal.

Richard: He won't object, since he doesn't want a broken code. He will bring the information back to NEMA to address in future code updates. He asked again for the original code change and Paul Messplay put a link in the chat box for VEBC 302.3. Kenny and Ron concurred.

Jeff: If Richard can get a proposal submitted before May 1 to address his concern, it can go to the Board at same time as this proposal.

Jeff: Seeing no other objections, this proposal has Consensus for Approval.

EB502.1.1-21

Keith Kesner: This proposal adds a sub-section with a reference to ACI 562, which was intended to provide clear concrete repair guidance. ACI 562 is a consensus document in response to issues with long term durability and performance of repaired concrete structures. This has been adopted as part of the existing building code in several states. It provides guidance to design professionals in evaluation of existing structures and in the design of repairs so that an equivalent level of safety is established in the repaired structure. It is also the first code that requires design professionals to consider durability of repairs and provides clear quality control requirements. It's a flexible document that is consistent with the VEBC. When preparing the proposal, the Applied Technology Council was consulted to ensure that there was no conflict with repairs to the seismic force resisting systems of existing structures.

Eric Edelson: He has repaired structures for more than 40 years. He has done millions of dollars' worth of repairs (repairing previously repaired structures). If the designs had been done in accordance with the ACI 562 code, those millions of dollars could have been saved. This is parallel to an engineer designing a new structure in accordance with ACI 318. ACI 562 gives direction to designing repairs. It will save money and repairs will be safer.

Kerry Sutton: Keith and Eric have spoken and their thoughts are representative of thousands in the industry, including the International Concrete Repair Institute, ACI and Virginia Ready Mix Association. The proposal to add this new section, and referencing the ACI 562 standard would be beneficial and complementary to the VEBC. It also assists with meeting the requirements of 102.1 in the existing building code as it provides for cost effective and timely repairs.

Kenney: Asked if this was submitted at the national level for either the 2021 or 2024 cycle?

Kerry: It was submitted for 2021. There were some who opposed (from California), but the opposition was not typical of other states in the country, who support it. She says other states have already adopted this code. It will be resubmitted for 2024.

Kenney: Asked if this goes above and beyond what is required in the 2021 IEBC?

Keith: It is consistent with IEBC, but provides more information on guidance for durability design of repair and evaluation of the existing structure. A majority of the time, the IEBC says that structure should be

restored back to the original design code. It doesn't provide assistance with evaluation or repair design, including durability considerations.

Kenney: The reason statement goes into sustainability and durability. Doesn't that by default require more than the IEBC? If this is used, will repairs be required to be more sustainable and durable than they were in the original construction?

Keith: Any repair will be more sustainable and properly designed repairs will be more durable. The language of ACI 562 talks about the establishment of the design service life concept with the owner, and provides guidance on how to do that. There is no discussion of durability in IEBC so the ACI provides additional information to the owner and design professional. It gives the flexibility to go above and beyond, but does not require it.

Kenny: This looks like it would be required. He's not in favor of the words "in addition". It speaks specifically to seismic force resistant concrete elements being done in accordance with 305. The intent seems to be that all structural concrete repairs need to comply with 562 but seismic repairs only need to comply with 305.

Keith: That is correct; it was done that way to avoid conflict with 305, and to avoid changes to the seismic force resistance system. He doesn't think there will be any issue in Virginia, since there are very few structures in seismic design categories D, E or F.

Kenney: He wants to make sure it's not requiring anything above and beyond what's required in the 2021 IEBC. He's not necessarily in opposition if it doesn't. He thinks the language could be tweaked a bit. He asked if the proposed changes should be before or after section 502.

Kerry: If there's a modification in language or location that Kenney wants to provide, they will consider it.

Kenney: Suggested to remove "in addition", and start with the word "assessment".

Kerry: That would be fine.

Kenney: Is this a requirement if repairs are substantial or less than substantial?

Keith: Both

Kenney: OK. It probably is in the appropriate section then. Is it specific only to concrete?

Kerry: yes.

Ron: Thinks it's in the proper location, and that the words "in addition" are not needed. If there's less than substantial structural damage, would someone have to go through the entire process?

Keith: This is a building code requirement, so if the repair is being permitted, it would apply. ACI is trying to raise awareness and quality levels across the board.

Ron: Maybe it should be in 501, based on what was just said, but he's not objecting.

Jeff: Getting rid of the words "in addition" sounds like it would

Kerry: Clarifying the section change – is there any concern?

Kenney: He thinks it is ok in section 502.1.1 where it is, since it's for all damage. He is not opposed

Jeff: The group did not have any further objections. Kenny clarified that he is not opposed. Consensus for approval as Modified with striking the words "in addition".

{BREAK 10:17 – 10:22}

EB1102-21

Scott Lang: He is a proponent, but not the author. This will be in the 2024 IFC, so it is important enough to bring up now. This addresses existing energy storage systems that use lithium ion batteries. NFPA 855 is coming out with a 2nd edition, attempting to make these systems safer. Systems designed now, according to the latest fire code, NFPA 855 and UL9540 are in good shape, but there are a lot out there now that need to have a close look. The new 2024 code will be in the IFC, not the IEBC, though this is a better place for it than fire code. He thinks that energy storage systems could have their own work group, because there's so much going on. This would require a hazard mitigation analysis, early detection system and corrective action plan, in accordance with FMEA or HMA.

Jeff: Received an email from Steve Shapiro from AOBA; he couldn't attend, but his comment is that AOBA has concerns about retrofitting. Steve's comments are noted, but only participants on the meeting today will vote for a decision.

Kenney: He applauds the effort. He thinks this may be what sunk a cargo ship recently in the Atlantic Ocean. He

does think that this needs to be driven by the General Assembly. There may be some things in Chapter 11 that weren't done through legislature, but wonders if this should be.

Ron: Has a concern putting this in the VEBC, since it's not about retrofitting and doesn't ask for anything to be done to the building. He thinks it might be better in chapter 12 of the SFPC, since it asks for information to be submitted to the Fire Official. Also, it says that it should be based on jurisdiction adoption of the fire code. Since Virginia does not do that, the language would need to be changed.

Jeff: In the SFPC Sub-workgroup now, there are some proposals being made to section 1207 of the SFPC, but more discussion is still needed. Approval of these systems should be under the Building Official in the VCC or USBC, but the operational and maintenance aspects should be in the SFPC. It is still in development. He knows that there are some looking into bringing the requirements of the 2024 IFC, Section 1207 into the 2021 VCC.

Robby: The fire on cargo ship was not determined to be caused by lithium ion batteries (at this point).

Ron: Agrees that requirements for construction and installation should be in the VCC. If retrofitting was required, it would go in the VEBC. He doesn't know what a corrective action plan would accomplish. In 1102.1.1, it talks about providing information to first responders, which would be more appropriate in the fire prevention code.

Kenney: Wonders if chapter 4 of the IFC would be a better place for a corrective action plan. Perhaps tighten the language up here to analysis and put early detection and action plan in the IFC. He asked Ron where the chapter 12 he referred to is located.

Ron: Chapter 12 of the SFPC.

Kenney: A true retrofit would be done regardless of other plans, repairs, alterations, change of occupancy, etc. Something that would trigger the need for some action to the building would not be a true retrofit. This proposal sounds is something to be done for all buildings with energy storage systems instead of a change of occupancy, which would trigger something to be done.

Jeff: Has concerns about correlating with other code proposals coming forth. He asked for actual objections.

Ron: Clearly objects to this in its current form and in this location.

Andrew: Can it go to the SFPC Sub-workgroup?

Kenney: Opposes in the current form, especially in Section 1102 – it should be in Section 1101, if it was in this code at all.

Jeff: There is objection in the current form. It could go to the SFPC Sub-workgroup, since some in the group would prefer it to be part of the SFPC. He asked the proponents if they want to send it to the SFPC Sub-Workgroup.

Scott: He did have some concern about placement as well. He would be in favor of bringing it to the Sub-workgroup. Even though the 2024 IFC will address new systems, existing systems should be addressed somewhere.

Jeff: Will consider this a carryover item and bring it to the SFPC Sub-workgroup, especially for the corrective action plan. DHCD will invite Kenney and Ron to the SFPC Sub-workgroup.

Scott: Also asked to be invited to SFPC Sub-workgroup.

Next Steps:

Jeff: Thanked everyone for their participation. There will be another VEBC meeting in April. The cutoff for proposals to be discussed at that meeting is March 11. The last meeting will be in June and the cutoff to submit proposals for that meeting is May 1.

General Stakeholder Workgroup Meeting

March 4, 2022 9:00 a.m. – 9:24 a.m.

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VMC & SFPC Proposals

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: *State Building Codes Director, State Building Codes Office (SBCO)*

Richard Potts: *Code Development and Technical Support Administrator, SBCO*

Paul Messplay: *Code and Regulation Specialist, SBCO*

Florin Moldovan: *Code and Regulation Specialist, SBCO*

Travis Luter: *Code and Regulation Specialist, SBCO*

Jeanette Campbell: *Administrative Assistant, Building and Fire Regulations (BFR)*

Kyle Flanders: *Senior Policy Analyst, Policy and Legislative Office*

Group Participants:

Andrew Milliken: *Stafford County Fire and Rescue, Representing himself*

Bryan Holland: *National Electrical Manufacturer's Association (NEMA)*

Robby Dawson: *National Fire Protection Association (NFPA)*

Ron Clements: *Chesterfield Building Official*

Steve Shapiro: *Apartment and Office Building Association (AOBA), Virginia Apartment Management Association (VAMA)*

Welcome:

Jeff Brown: Briefly reviewed the 2021 Code Development Cycle workflow. He shared the presentation on screen and in the file pod available to download. Highlights:

- tentative dates
- cdpVA web site
- base documents
- meeting types and topics

Participants introduced themselves, and who they represent.

Jeff: Asked participants to stay muted when not speaking, to let the group know if they are speaking for themselves or the group they represent, and to be clear on voting in favor of or in opposition to the proposal.

Proposals:

FP901.6.3.2-21

Andrew Milliken: Most of the annual on-site inspection records are kept electronically. This proposal would require a physical tag or sticker to be placed on the equipment, when the inspection is completed in accordance with section 901.6.1. This proposal was brought to the SFPC Sub-Workgroup, and had some revision based on recommendations from that meeting. Primarily, there was a sentence added to also require a physical tag for “all other” inspections in accordance with the applicable reference standards.

Jeff: Seeing no other discussion, this will be marked consensus for approval as modified. CAM

FP901.4.8-21

Andrew: This proposal was brought to the SFPC Sub-workgroup and had some modification of the wording for clarity. The proposal says that building components such as walls, ceilings and ceiling tiles, which are expected to be there during construction of the fire protection system, and are critical to the operation of the system, are maintained. This section can be cited when there are holes, missing walls, ceiling tiles, etc.

Robbie Dawson: (for himself) For the language used, “Where building components...are required by the installation standard”, where are ceiling tiles required?

Andrew: NFPA 13 and NFPA 72 both require smooth continuous ceiling.

Jeff: Seeing no other discussion, this will be marked consensus for approval as modified. CAM

FP1201.3-21

Jeff: This proposal was agreed to by the SFPC Sub-Workgroup, and the group became a co-proponent.

Andrew: This section was deleted from the 2018 SFPC, assuming that it was related to construction. It’s being added back in to ensure that the overall capacity of the energy storage systems do not exceed the maximum allowable quantity specified in the building code. This is similar to the way hazardous materials are handled. The applicable building code would have a threshold for when additional requirements would be necessary for energy storage systems.

Bryan Holland: He (NEMA) fully supports this. He asked why the first sentence was modified from the base model code, where the language about approval was put at the end, instead of at the beginning. He asked if the language could perhaps read “and as approved by the building official”

Andrew: The language has been used to ensure that the sections are not construction-related, so it was done for that purpose.

Jeff: Seeing no other discussion, this will be marked consensus for approval. CA

Next Steps:

Jeff: Thanked everyone for their participation and let them know that residential and trade workgroup meetings are the remaining ones scheduled in March. The next cycle of workgroup meetings will start in April.

General Stakeholder Workgroup Meeting

March 8, 2022 9:00 a.m. – 9:43 a.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc/>

VRC Proposals

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: *State Building Codes Director, State Building Codes Office (SBCO)*

Richard Potts: *Code Development and Technical Support Administrator, SBCO*

Paul Messplay: *Code and Regulation Specialist, SBCO*

Florin Moldovan: *Code and Regulation Specialist, SBCO*

Travis Luter: *Code and Regulation Specialist, SBCO*

Jeanette Campbell: *Administrative Assistant, Building and Fire Regulations (BFR)*

Kyle Flanders: *Senior Policy Analyst, Policy and Legislative Office*

Group Participants:

Aaron Sutch: *Solar United Neighbors*

Al Larsen: *Ipsun Solar*

Andrew Milliken: *Stafford County Fire and Rescue, Representing himself*

Chad Wilkins: *Owner of Convert Solar*

Claudia Cotton: *Government Relations Coastal Virginia Building Industry Association, Board of Housing and Community Development*

Herve Billiet: *Ipsun Solar*

Nolie Diakoulas: *Convert Solar*

Randy Grumbine: *Factory-Built Housing, Virginia Manufactured and Modular Housing Association (VAMMHA)*

Steve Shapiro: *Apartment and Office Building Association (AOBA), Virginia Apartment Management Association (VAMA)*

Welcome:

Jeff Brown: Welcomed the participants. He asked if anyone wanted to review the Adobe features or the 2021 Code Development Cycle presentation. Since there were no requests to review the information, he pointed out that the presentation is available in the files pod of the meeting space. He invited participants to introduce themselves and who they represent, and then he introduced the DHCD staff.

Proposals:

RB324-21 - Submitted by Al Larsen

Al Larsen: This is a proposal to modify the IRC rooftop pathways section. The incoming IRC provision will cause a substantial impediment to installing solar panels. This proposal will prevent that, while maintaining safety.

Herve Billiet: Changes were made to the fire setback and pathway requirements in the 2018 code development cycle. The pathway requirements became much wider than previously required. This new requirement would make solar panel installation either not economically viable, or would significantly reduce the size of projects and amount of energy generated. The prior setbacks were already safe, so the wider pathways inhibit solar installation without providing any new consumer safety benefit. The 2018 provisions are skewed too far, and this proposal would bring balance with tradeoffs.

Nolie Diakoulas: After the 2018 code development cycle was completed, Virginia adopted many new statutes, such as the Clean Economy Act, which seeks to remove any impediments to solar energy. This IRC code change impedes on that act, and should be removed or revised to make the code consistent with the superseding law. The DHCD said in 2014 that the IRC section R324.6.1, which regulates the installation of residential photovoltaic roof systems, doesn't reference the fire code and therefore, photovoltaic requirements set forth in the fire code are not applicable to 1-2 family dwellings. The pathway issue must be resolved in IRC, but not in any other code, such as the fire code. There may be concerns in fire community, and proponents invite discussion to see if they can arrive at an acceptable compromise. For example, if there are only solar panels on one side of the roof, the fire personnel could access the dwelling on the other side of the roof. Or, if there are setbacks on one side, but not the other side. They would like to revise R324.6.1 to satisfy safety concerns and also have no impact on solar viability. Perhaps adopting an exception clause may be viable.

Herve: It is common knowledge or practice to not walk on solar panels (besides in an emergency). They can be walked on safely in an emergency. There is also a main disconnect. Fire personnel can both turn off the main power, as well as walk on the panels safely.

Jeff: Asked for clarification of the reason statement where it says that in 2014, the industry reached out to DHCD. It seems like the question was if the solar provisions in the IFC were applicable to 1-2 family dwellings. The answer at that time was no. The provisions were in the IFC but not the IRC, so there was no pathway to the IFC for 1-2 family dwellings. Now, there are provisions in the IRC.

Al: He's not sure he understands Jeff's question. He said the original question was which code controls in the residential installations? The answer was included in the reason statement. What additional context is he looking for? They can go back to the original exchange after the meeting to clarify further.

Jeff: The original question was related to a different code edition, so it may not have the same application today as it did when the question was asked.

Al: He figured the easiest way to address the concern was in the IRC, not the IFC.

Andrew Milliken: Read a prepared statement:

I will be in opposition to the reduction to 18" and the reduction to a single pathway due to the impact that has on fire department operations. I'm aware that your reason statement indicated that fire departments do not operate on roofs however that is simply not the case throughout Virginia. In addition to house fires where ventilation is often needed, other incidents such as chimney fires, technical rescues, or lightning strikes require the fire department to access multiple roof areas for their operations. Most importantly, this section is intended to provide the working space for placing a roof ladder from the peak to the bottom roof edge which provides a stable working area for fire department operations. The width alone of the roof ladders used for

this purpose are 19-20" so they would not even fit in the proposed 18" space and certainly wouldn't provide room for adjustment or error during urgent emergency use.

The International Residential Code requires a 36" path so that there is the minimum space needed for the firefighting gear, tools and equipment used for roof operations and access. This is the standard used across the nation and the gear, tactics and equipment used in Virginia is no different. Secondly, the elimination of a second path appears unjustified in your reason statement. During emergency incidents, often with limited visibility and rapid deployment, an access point clear of obstructions cannot be guaranteed from a single point. Having at least two choices for roof access provides critical options to firefighters who need to rapidly access the roof, particularly when homes are located away from emergency vehicle access.

As proposed, this change is problematic to the fire service and I can't support it for consensus approval. If a change is really needed across the industry, maybe a proposal to the International Residential Code would be the place to start.

Aaron Sutch: Represents homeowners. The provisions now really kill solar installations on many rooftops. Many only have one solar plane that's applicable for solar panels. There seems to not be a full consensus in the way fire departments handle this issue. He is hoping for some flexibility. This is an important, unique technology for homeowners; solar & battery storage allows them to save on energy bills and prepare for disasters. Again, the current code severely hampers the ability to install panels and meet sustainability goals. If a common path could be found, it would help to represent the rights of solar panel homeowners.

Andrew: Exception #2 says that pathways and setbacks need not be provided when the code official determines that rooftop operations will not be employed.

Nolie: There has been that exception, however, fire personnel have not been willing to give the exception and give no answer as to why. There is a pathway to exception, it's ok to have a setback for firefighters, 36" on front of house or driveway or street facing to access the mounting plane. But no setbacks other than 18" in other areas. In the original code that was sent out a few months ago, in the picture, there are 3 ft. setbacks around the entire array and no solar panels on the other side of house. If the roof can be accessed on side with no solar panels, it should be easy to do that. Or have setbacks on the front, but not the back. Or, ladder access from peak of the roof to the gutter line. Ladders can be laid on top of solar panels. The tesla solar roof, which is an all glass roof can be accessed. An acceptable compromise can be reached.

Jeff: After Workgroup discussions, the group votes on each proposal to make a recommendation to the Board of Housing and Community Development. Results of voting are: consensus for approval (CA), consensus for approval as modified (CAM), consensus for disapproval (CD), non-consensus (NC), carried over (CO) or withdrawn (W). Currently, it sounds like the group decision on this would be non-consensus. He called for one last discussion.

Nolie: Asked if Andrew wanted to meet outside of the group to draft something together. It's unknown by the proponents how many homes catch fire on a regular basis. That information would be good for solar companies and others to know. Solar companies are losing about 1/3 of their business due to this strict rule.

Jeff: It would be up to Al to make the final call. Again, it would currently be non-consensus decision, or it could carry over and the group could bring it up again in the April meeting to try to reach a consensus vote.

Andrew: That sounds good. He does have a Fire Services Codes and Standards Committee meeting on March 23rd. That might be an opportunity for the proponents to present their case and come closer to consensus moving forward. Just because they work with Andrew, doesn't mean everyone in fire services would have the same opinion.

Jeff: Asked Al if he wanted to work with Andrew to bring this to the Fire Services meeting.

Al: He's not sure what to call this. They do want to continue the discussion to reach consensus, which would ensure safety and not kill projects. What is the proposed continuance?

Jeff: There can only be one decision on this proposal. If it's voted on now, it would be non-consensus. It would be better to carry over and look for additional compromise or consensus for the April meeting.

Al: Wants to carry over.

Steve Shapiro: This has been discussed at the national level. Virginia isn't much different than other states. This should be done at the ICC level, rather than individual states. It seems that would be the better venue.

Herve: There are a lot of different roof styles across the states. Discussion at the National level would not be as productive as at the state level in Virginia. He spoke with Andrew earlier, and would like to speak further with him and Nolie about options to keep firefighters safe. He offered his own house as a test site to demonstrate.

Jeff: March 12 is the cutoff date for submitting proposals to the April workgroup. It can still be brought to the April meeting, if there are changes or not, to continue the discussion. The next cutoff to submit proposals is May 1 for the June meetings. Keep communications open, discussions flowing, and keep DHCD in the loop to update and facilitate.

Aaron: How would others get in on these meetings, such as municipal partners?

Jeff: Anyone is welcome. The workgroup meetings are open to the public.

Al: They will probably put the same proposal forward for April and will continue discussions.

Jeff: It will be on April 19 agenda, and will probably carry over again to the June meeting.

Andrew: The sentence with the most changes looks like a run-on sentence. It could be clearer.

Jeff: Carry over to April. (CO)

Jeff: Thanked everyone for their participation.

General Stakeholder Workgroup Meeting

March 9, 2022 9:00 a.m. – 9:39 a.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc/>

Trades Proposals

ATTENDEES:

VA Department of Housing and Community Development (DHCD) Staff:

Jeff Brown: *State Building Codes Director, State Building Codes Office (SBCO)*

Richard Potts: *Code Development and Technical Support Administrator, SBCO*

Paul Messplay: *Code and Regulation Specialist, SBCO*

Florin Moldovan: *Code and Regulation Specialist, SBCO*

Travis Luter: *Code and Regulation Specialist, SBCO*

Jeanette Campbell: *Administrative Assistant, Building and Fire Regulations (BFR)*

Kyle Flanders: *Senior Policy Analyst, Policy and Legislative Office*

Group Participants:

Brent Werlein: *Virginia Beach Public Utilities*

Daniel Willham: *Virginia Building Code Officials Association (VBCOA), Fairfax County*

Devon O Louis:

KC Bleile: *Viridiant*

Randy Grumbine: *Factory-Built Housing, Virginia Manufactured and Modular Housing Association (VAMMHA)*

Richard Grace: *Fairfax County Land Development Services; Chairman of VPMIA*

Steve Shapiro: *Apartment and Office Building Association (AOBA), Virginia Apartment Management Association (VAMA)*

Welcome:

Paul Messplay: Gave a brief tutorial about how to use the Adobe Connect meeting space features.

Jeff Brown: Welcomed the participants to the trades workgroup meeting, and gave an overview of the 2021 Code Development Cycle, using a slideshow presentation attached as part of the meeting documents. Highlights:

- DHCD staff introduced themselves.
- 2021 code development cycle and Study Group, Sub-Workgroup and General Workgroup meeting flows.
- Proposals will only be accepted during the proposal phase, but not during the final phase.
- Overview of the cdpVA and DHCD websites, including links to documents used during the cycle.
- Review of General Workgroup meeting agendas, meeting dates and voting processes.
- The main purpose of the General Workgroup meetings is to vote on the proposals in the agenda. The following voting options were reviewed: consensus for approval, approved as modified, disapproval, non-consensus, carry over, and withdrawn.
- Meeting summaries, proposals and voting results will be prepared and submitted to the Board of Housing and Community Development.
- Agendas with proposals are sent out a few weeks in advance for review prior to the meetings.

Participants introduced themselves, and who they were representing.

Proposal:

P1003.3.2-21

Brent Werlein: He proposed a similar change to the 2021 IPC, and received feedback that they would prefer the original wording. Now, he's bringing the proposal to the Virginia code change process, with the wording that was used prior to 2018, regarding food waste disposers. The proposal addresses an issue that when food waste disposers do not go through grease interceptors, it creates a problem in the sewer lines.

Steve Shapiro: Asked if Brent was in the ICC code change process currently, and if he submitted something for the 2024 process.

Brent: Submitted the change for the 2021 cycle, and will also submit this same type of change in the 2024 cycle.

Steve: The proposal submitted for the 2021 ICC cycle was not approved?

Brent: Yes, that's correct.

Jeff: To clarify, is the text in this proposal different from that which was submitted to the 2021 ICC hearings, and it has been revised here based on their comments?

Brent: Yes, that's correct.

Steve: Asked Brent if he had an order of magnitude for the cost impact of adding a solids separator?

Brent: He does not have an exact cost due to multiple variables. The cost could be \$500 to \$3,000 for a larger concrete interceptor.

Jeff: Asked for additional comments in support or opposition.

Steve: Asked Richard if VPMIA has taken a position.

Richard Grace: He was not sure. However, VPMIA did not support proposal P134-21. Probably because it was calling for the local sewer authority to perform the installation. He cannot say there's full approval, but he can't speak for VPMIA specifically about this proposal now.

Jeff: Since there was actually no opposition today, it will be marked consensus for approval (CA), unless Richard does want to stand in opposition for himself or VPMIA.

Richard: Asked for a few minutes.

Jeff: Let Brent know that if there was some opposition, the proposal could be carried over.

Steve: Suggested that it might be carried over to give Richard time to get a response from VPMIA, especially since it did not pass through at the ICC level.

Jeff: The proposal has already been posted for over 30 days.

Brent: He did cleanup the language since ICC 2021 and he is willing to wait for a discussion with VPMIA.

Richard: Said he would like to work with Brent on VPMIA support.

Jeff: This proposal will carry over per the proponent's request. The April workgroup cutoff to submit proposals is midnight this Friday, March 11 for the April 20 meeting. If the proposal is not ready by that time, May 1 is the cutoff to get it on the June workgroup agenda. He thanked everyone for their time and participation.