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BOARD OF BUILDING REGULATIONS AND STANDARDS
NOTICE OF VIRTUAL MEETING

Fire Prevention and Fire Protection Subcommittee

In accordance with the provisions of G.L. c. 30A § 20, notice is hereby given that the Fire Prevention and Fire Protection Subcommittee of the Board of Building Regulations and Standards (BBRS) convened a meeting in accordance with G.L. c143 § 97 on:

Meeting called to order on Wednesday, December 17, 2025 at 9:34 AM
Meeting Minutes

Roll Call

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|--|---|
| David LeBlanc, Chair, Fire Protection Engineer | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Luke McKneally, BBRS Member | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Jake Nunnemacher, BBRS Member | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Carissa Lisee, DOL Appointee | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Tom Farland, Municipal Fire Official | <input type="checkbox"/> present <input checked="" type="checkbox"/> absent |
| Steven Nocco, Municipal Building Official | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Michael Yanovitch, Building Contractor | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Eric Svahn, Architect | <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |
| Matthew Bourque, Developer | post roll call <input checked="" type="checkbox"/> present <input type="checkbox"/> absent |

1. **Review/Discuss** A2L refrigerants

a. Presentation by T. Deary, JS Rancourt, Alex Ayers

Thomas Deary, Senior Director of Codes from AHRI introduced himself along with the two other presenters, JS Rancourt, Principal from DXS New England and Alex Ayers, VP of Government Affairs for HARDI. Mr. Deary screenshared the presentation, An Introduction to A2L Refrigerants. He noted the disclaimer from his organization.

The presentation included background on A2Ls, the extensive effort given to research, and that starting with the 2022 edition of ASHRAE 34, A2L is its own distinct set of flammability classes. The presentation also included a review of the different refrigerant flammability classes and what it means to be A2L, a review of what constitutes an A2L noting the 4 major parameters of flammability limits, minimum ignition energy, burning velocity and heat of combustion, and a review of the overall flammability takeaways for A2L. These include that A2Ls are less likely to form flammable concentrations, harder to ignite, and less reactive and have lower combustion energy. He then handed over the presentation to Alex Ayers to speak to A2L storage. Mr. Ayers spoke about the adoption of an updated standard with new categories with Category 1B (A2Ls), a low burning



velocity flammables gas. He spoke to additional storage for mercantile and storage occupancies allowing for increased quantities per control area but has additional restrictions on the storage configurations. He then reviewed the specific storage requirements, sprinkler designs, and storage areas. Questions were asked by the subcommittee. Jake Nunnemacher raised concerns about A2Ls being brought in that cannot be there until we transition to the new code. Mr. Nunnemacher asked where the storage heights requirement is noted. Answered it is near M&S table and would follow up with this information. Chair LeBlanc also interjected to state the committee's concerns are that people are transitioning and are they doing what they should be doing. He asked what does this mean for the state of MA as our older codes did not address this storage item.

Thomas Deary then covered standards updates for HVAC equipment and noted ASHRAE guidance as well as UL60335-2-40 and UL60335-1. The concept is to ensure the releasable refrigerant charge in the equipment is less than or equal to the maximum allowable refrigerant charge for a given space and this is done utilizing tables. He went on and discussed HVAC equipment labeling, refrigerant and charge inventory and manufacturers installation instructions. Mr. Deary noted model code updates for 2024 IMC regarding permitted refrigerant safety group classifications A1 and A2L as well as updated tables to include all refrigerants in ASHRAE 34-2022. He stated the modification he submitted is related to this as there were some errors carried to the 2024 IMC that have since been corrected via an interim critical amendment or ICA. Mr. Deary handed the presentation over to JS Rancourt to discuss the proposed changes submitted. He reviewed a chart noting the outstanding changes remaining.

1101.1.1 Refrigerants other than ammonia

1104.4 Volume Calculations

1109.2.5 Refrigerant pipe shafts

Chapter 15: referenced standards ASHRAE

JS Rancourt first reviewed the safety items addressing A2Ls which included refrigerant concentration limits for A1s and A2Ls as well as clarifications and formulas on how to connect spaces when calculating volumes for refrigerant concentration and pipe shaft exemptions. He went on to discuss the pipe shaft issue and provided background on this which included that ASHRAE 15 does not require A1 or A2L pipes to be in rated shafts, IMC 2021 and IMC 2024 does not have ASHRAE 15 2022 language and only allows A1's to not be in shafts, and proposed IMC 2027 does align with ASHRAE 15 2022 and allows A2Ls to also not be in shafts.

Chair LeBlanc pointed out that although there was a lot of information shared he was hoping to see specifics from studies and tests done by independent labs and would like to see these reports as well. He stated that this will ensure code proposals are technically justified.

JS Rancourt provided that the slide regarding ignition sources, this table is based on research. Mr. Rancourt continued his review of slides and consequences of IMC 2024 language regarding pipe shafts includes cost increase to the design of multi residential buildings. IMC 2024 would require all pipes to be centralized in shafts. Major issue with existing buildings since all R-410A pipes are currently in walls.

Chair LeBlanc recognized Ian Finlayson from the Energy Advisory Subcommittee. Mr. Finlayson noted the shaft issue is a huge issue for the energy code not only for retrofitting existing buildings but for new construction. He spoke about slowness of ICodes and that ASHRAE is quicker. Focus is to give industry good guidance on best practice and not adding costs and putting big holes in buildings we do not seem to need. He noted this should stay in FPDF but wanted to flag this concern from energy.

Thomas Deary shared resources which included an A2L building codes interactive map which has links to the state's building codes, safe refrigerant transition site links, ICC A2L refrigerants webpage showing red lines version for all I codes, and links to other training resources

Executive Director Gropman stated she would make available to the subcommittee all presentations shared today.

Luke McKneally asked if Thomas Deary has specific links to the studies and testing shown in slide decks and if he could share these.

Chair LeBlanc stated it should be included in backup to justify what they are submitting. Jake Nunnemacher noted he did find the requirements in the IFC about the 6'6 storage and extra hazard 5003.11.2 hazardous materials section 2024 IFC. Jake noted that if it is not in NFPA 1.00 it is very difficult to reference.

Mr. Nunnemacher posed a question about refrigerant detection systems and if they call the fire department? JS Rancourt answered the refrigerant detectors do not call the fire department. They are meant to trigger onboard safety mitigation measure, shut the compressor down, turn fan on and shut isolation valves.

Michael Yanovitch noted he wanted to make sure we are not adding additional costs. He wants people to continue building safe structures. He posed question what are you seeing nationally as far as shafts go, for the requirement for installation of these shafts?

Thomas Deary answered that a handful of states as they adopt 2024 have adopted ASHRAE 15 addendum which is an emergency rule stating amending code A2L piping does not need to be in shafts. Anecdotally noted no opposition at state level but still very early to advocate for it.

b. Code Proposals

i. Thomas Deary (1) Table 1103.1

Ian Finlayson of the Energy Advisory Committee stated that this code proposal is similar to another proposal from JS Rancourt and questioned are they the same.

Chair LeBlanc explained they are related but different. He went on to state if 2024 IMC has a table with erroneous data and even if we adopt the latest version of ASHRAE, 2024 IMC trumps the ASHRAE version as it is higher in the priority level. He noted we would need to fix the IMC 2024 even if you fix the ASHRAE standards.

This was confirmed by Thomas Deary.

Thomas Deary summarized this current proposal. An ICA was submitted to correct the table and approved by ICC and it is official now.

Board Counsel Kilb asked if this was carried out in the second edition of the IMC updated this past October. Mr. Deary noted he was not sure if it was final at that time.

Board Counsel Kilb stated that as a best practice, we should try to adopt the most up to date version of the code which fixed errata.

Chair LeBlanc stated we will need to nail this down, and it is something that will need to be fixed. Further discussion followed about needing the code change and subcommittee will need to look into this.

Board Counsel Kilb stated as a general matter the intent is to start with the latest version of unamended I-Codes which includes any changes, errata, modifications, TIAs that ICC has incorporated into it. Then a review should occur of any amendments not included in that version.

Chair LeBlanc stated it was not his understanding yet at end of day need to get to this updated table

Chair LeBlanc called upon BBRS members to clarify the ICA. Luke McKneally stated he did not have an opinion, but it makes sense that errata and amendments would be adopted. Does not know what historically we have done but would not be unreasonable to adopt that.

Chair LeBlanc stated it was worth a vote if we believe the ICA will be pulled in. Luke McKneally motioned to recommend to the BBRS that the ICA regarding table 1103.1 be adopted, Michael Yanovitch seconded. No further discussion.

None opposed. None abstained. Motion carried unanimously. Chair LeBlanc followed with whether it is auto pulled in or pulled in separately it should be part of 11th edition.

ii. JS Rancourt (4)

Mr. Rancourt walked through IMC 2024 Chapter 15 code change proposal for updating the referenced standards to ASHRAE 15 and 34 for 2024 and collapses all the addendums.

Legal Counsel Charles Kilb noted for the Committee that they need to be careful to see if addendums are in the latest edition of the ICC codes since those codes have effective dates, he indicated that if changes are made to an I-Code after the BBRS adopts it, those changes wouldn't be part of the Massachusetts code unless a new regulation process was started. He stated he would defer to BBRS members but he is almost certain that the intent of the BBRS is that absent any amendments, the subcommittees should start with the presumption that anything the ICC has adopted should be included. Jake Nunnemacher confirmed. Luke McKneally added that we as a board need to review what exists.

Board Counsel Kilb noted the very last vote the BBRS takes before public hearings should include the most up to date I-Codes and any corrective documents issued by ICC, after that vote any further changes would need a post hearing amendment. Mr. Rancourt, based on this discussion, will add these addendums to include in the review for BBRS.

Chair LeBlanc recommended the subcommittee vote 2024 edition with addendum.

Luke McKneally proposed that the subcommittee bring to BBRS that this is recommended, if there is a 2027 edition, should be reviewed and potentially proposed.

Chair LeBlanc recognized Ian Finlayson. Stated he was in favor of moving forward with 2024 edition and citing addendum A and B for clarity.

Luke McKneally rescinded the earlier motion in order to wait for addenda A and B, Michael Yanovitch rescinded second. His motion to recommend the adoption of ASHRAE schedule 15 and 34 standards 2024 edition including addenda A and B, seconded by Michael Yanovitch. JS Rancourt will provide this new proposal. He will submit a new version of this code change and attach all the addendums beyond A and B.

Luke McKneally rescinded the latest motion to wait for all addenda to be included and make sure there are not others that should be included, seconded by Michael Yanovitch.

Chair LeBlanc noted that for the other proposals such as volume controls, parallel ASHRAE approach that bypasses IMC needs more substance. He would like to see independent studies that speak to the leaks and concentration to have technical understanding and background.

Luke McKneally noted the alternative pathway we are currently using the ASHRAE 15 and 34 standards 2024 editions is important to the buildability and progress and should be discussed and adopted in addition to updating the IMC language.

Chair LeBlanc agrees but personally would like to see the background information because as a technical subcommittee we deserve the technical information that supports proposal. He appreciates it would be a cost savings but as a FFPF committee, we need to address the fire concern with this.

JS Rancourt suggested he resubmit the code change proposals and add supporting docs with research. He could provide an update in the new year and can include research and updated links. Chair LeBlanc restated he appreciates the summary tables, yet personally looking for information particularly regarding concentrations and energy levels for ignitions. As a technical subcommittee, we should have the technical aspects and specifics from studies.

2. **Review/Discuss** Assigned Code Sections – Chapters 4, 7, 9, 33, A2L and code proposals from the 10th

Chair LeBlanc stated the January 16th will be used for a Chapter 33 review.

3. **Discuss** Other matters not reasonably anticipated 48 hours in advance of meeting
Next meeting scheduled for January 16, 2026 at 9:30 AM.

Jake Nunnemacher motioned to adjourn meeting, seconded by Luke McKneally. A roll call vote was held, none opposed, none abstained. Motion passed unanimously.

Meeting adjourned at 12:33 PM.

Items relied upon

- Agenda
- Meeting Minutes
- Presentations
- Code Change Proposals