Construction Codes Advisory Board Minutes

October 15, 2026

Jamie Yengel
Lily Iftner
Bill Babbitt
Jim Safranek
Judy Tucker
Rob Lane

Lachlan Foss
Greg Gilda

Board Members absent:

City Staff:

Micah Chappell
Merria Norris
Philip Man
Jenifer Gilliland
Ardel Jala
John Thomas
Nathalie Boeholt
Ken Brouillette

General Public:
Ben Omura, Ben Tamarkin, Brian Morris

1. Welcome and Introductions.

2. Approve September 17. CCAB meeting minutes.
Correction of typo in Item 6, Appendix T. Correct “single exist” to read “single exits”.
Motion to approve the minutes made by Judy Tucker and seconded by Greg Gilda. Minutes approved.

3. Proposed changes to 2024 Seattle Mechanical Code

These code changes have been reviewed and recommended by the Mechanical subcommittee or the State of Washington prior to CCAB review. The State of Washington will complete its draft CR103 to send to the legislature in the next couple of weeks.

Chapter 1 Administration
Not adopting State of WA changes:

115.4 Failure to comply: Keeping term code official(instead of AHJ) because Seattle’s Chapter 1 is structured differently than the generic ICC chapter. No CCAB comments.

110.7 Civil Penalties, 110.10 Alternative criminal penalty, 110.11 Additional relief—Not adopting state changes because Seattle already includes these in Chapter 1 of the code in a different format. No CCAB comments.

Chapter 2 Definitions

Most of the changes to the definitions were meant to clarify the status quo, not change requirements. Balanced ventilation and Not Distributed Whole House Ventilation system definitions are not adopted. Washington State and Seattle have a separate section for Whole house ventilation, Section 403.4.

[W]((~~BALANCED VENTILATION SYSTEM.~~ ~~A ventilation system that simultaneously supplies outdoor air to and exhausts air from a space, where the mechanical supply airflow rate and the mechanical exhaust airflow rate are each within 10 percent of the average of the two airflow rates.~~)) Not adopted.

~~**[W] NOT DISTRIBUTED WHOLE HOUSE VENTILATION SYSTEM.** A whole house ventilation system shall be not be considered a whole house distributed ventilation system when either the supply system or the exhaust system is not distributed. Supply systems are not distributed when a habitable space is supplied with outdoor air to ventilate an *interior adjacent room* or an interior adjoining space. Exhaust systems are not distributed when all bathrooms and~~

New Definitions added:

[W] EFFECTIVE DISPERSAL VOLUME. The volume of a space or connected spaces in which leaked refrigerant will disperse.

[W]EFFECTIVE DISPERSAL VOLUME CHARGE (EDVC). The maximum refrigerant charge permitted for an effective dispersal volume.

[W][BG] HABITABLE SPACE. A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

Definitions are Modified:

[W] DISTRIBUTED WHOLE HOUSE VENTILATION SYSTEM. A whole house ventilation system shall be considered distributed when it supplies outdoor air directly (not transfer air) to each dwelling or sleeping unit *habitable space* other than adjoining spaces used for eating or cooking, and where it supplies *outdoor air* directly, or indirectly through an unobstructed fixed opening sized in accordance with Section 402.3, to adjoining spaces used for eating or cooking.

[W] MACHINERY ROOM. ((~~An enclosed space that is required by Chapter 11 to contain refrigeration equipment and to comply with Sections 1105 and 1106.~~))A designated space meeting the requirements of 1105 and 1106 that contains one or more refrigerating systems or portions thereof. ~~kitchens are not exhausted by the whole house ventilation system. If either the supply system or the exhaust system is not distributed, then the ventilation quality adjustment system coefficient adjustment is required in accordance with Section C403.4.3.~~

[W] INTERIOR ADJACENT ROOM. An enclosed room, qualifying as *habitable space*, without exterior windows or openings to the outdoors located within a dwelling or sleeping unit that does not have interior unobstructed openings required for an *interior adjoining space*.

[W] INTERIOR ADJOINING SPACE. A *habitable space* without openings to the outdoors that is naturally ventilated from another *habitable space* by unobstructed fixed openings size in accordance with Section 402.3.
See Discussion in Chapter 4 for addition of "habitable space" definition for the code.

Chapter 4

401.4 Intake opening location—changes in language dealing with ventilation openings in parking garages and open parking garages intakes.

Item 2, exceptions 2 and 3—The state is adding language addressing requirements for unenclosed parking garages and enclosed parking garages that mirror the 2021 Seattle SMC code amendments.

Item 3--State making changes in in terminology—instead of using word “kitchen” they are using “domestic” cooking exhaust; have changed from fan manufacturer to appliance manufacturers instructions—the fan manufacturers aren’t always the ones manufacturing the appliances so a broader term is used.

401.4.1 Separation of air intake openings.

[S] 401.4.1 Separation of air intake openings. Air intake openings, as defined in Section 401.4, shall open to the outdoors and shall be located no closer to exhaust air outlets, property line, vents, streets, alleys, parking lots, and other building elements than the minimum separation distance specified in Section 401.4. The distance is defined as the shortest "stretched string" distance measured from the closest point of the air intake opening to the closest point of the exhaust air outlet opening, vent, property line, street, alley, parking lot, or other building element along a trajectory as if a string were stretched between them.

Air intake openings are permitted to be located within a building opening as defined by Section 705.8 of the International Building Code. Where the air intake opening is located within a building opening the separation distance for the air intake opening shall be measured from the vertical plane at the edge of the horizontal projection of the roof or floor.

This is a new Seattle change meant to clarify how to measure distances between outdoor intake and other openings using the “stretched string method” originating from ASHRAE 62.1 language. Outdoor air intakes are permitted to be located in an unprotected opening of the building in accordance with section 705.8 of the building code. In a “cut out” building, you would measure from the vertical plane at the edge of the horizontal projection of the roof or floor. You don’t measure from the louvre in these cases. All the air is coming from the vertical face of the building. Clarifies how the code is being enforced. See also informational note and building code figure. CCAB discussed whether this language was clear enough to describe how the building opening protection requirements (705.8) and mechanical code requirements on air intake openings relate to one another. Concerns were expressed about ratings of the openings and the walls at less than 10 feet. Seattle has a code Interpretation I705.8 that provides two options. The last sentence in paragraph 2 above only references Option 1. The proposed language may be too limiting because it could restrict the use of Option 2. Need some clarification on the issues to consider between this section and SBC 705.9. Need to know what to do when Make sure you protected openings and nature of the wall itself.

Action item: Consider adding the “Where” air intake openings are permitted to be located… or other language to the second paragraph of 401.4.1.

Table 403.3.1.1

403.3.1.3 System operation. Minimum flow rate of outdoor standby mode. The model energy code and ASHRAE 62.1 now allow the outdoor air rate for ventilation in certain spaces like class rooms and conference rooms to go to zero when unoccupied. building you can shut off ventilation to classrooms, offices—when the space is unoccupied. Go to ASHRAE 62.1 Table to see on a space by space basis which uses are allowed to go to a ventilation rate of zero.

403.4.4. Whole house ventilation The terminology is cleaned up to match what was done in earlier sections.

403.4.1 System design. Wanted to ensure that both supply and exhaust fans are required for ERV/HRV in whole house ventilation system.

403.4.4.1 Whole house ventilation in Group R-2 occupancies.

Last code cycle, the concepts of interior adjoining space and interior adjacent space were developed. Dwelling unit floor plans vary dramatically. We need a way to handle ventilation for great rooms and other spaces open to one another in a way that we don’t need to provide ventilation for each little space. Ben Omurra asked where did the last portion of the sentence of

403.4.4.1 come from—"one or more of the following rooms: and Living room, dining room or kitchen”? Doesn’t make sense in a section related to intermittent controls. It’s basically referencing an exception for if the equipment that is configured with intermittent controls. May need to check the references to section 403, 465. This hasn’t made it through the state process yet.

Action Item: Look at closely. Possibly eliminate the phrase "~~and to one or more of the following rooms: Living room, dining room, or kitchen.~~" May be a mistake. Is it specifically those three rooms? What about a home office. The definition will cover other rooms. Maybe specify that the system or portion is configured to one or more of those rooms.

403.4.4.2 Changes match newer terminology used in previous sections.

403.4.6.1 Exhaust fans. The changes allow a broader selection of equipment. Allows more flexibility coming from emerging technology. You don't have to go through the testing, but you do have to do everything else required in this section. Integral heating and cooling heat pumps: Two sets of fans in one set of equipment one for heating and cooling that cycles on load and one to do the continuous ventilation. Allows more flexibility for emerging products in the market. Doesn't change current practice; you have to be able to deliver the airflow and meet noise ratings but don't have to have testing by HVI.
Action item: Need to flag any changes in enforcement. Nothing changes in current practice. If there are things that were previously accepted by the AHJ that no longer will be—make sure to flag those for Ardel.

403.4.6.3 Balanced house ventilation. The terminology is cleaned up to align with terms in other sections.

TABLE 403.4.7 Minimum Exhaust Rates. The 2024 IBC is increasing the continuous exhaust rate for bathrooms - toilet rooms from 20 cfm to 25 cfm.

403.4.7.3 Duct length. WA state has had its own prescriptive duct length section. The 2021 language is being replaced with language from a national standard on how to do prescriptive duct sizing for a residential system. Maybe ASHRAE?

Table 403.4.7.3 Kitchen Range Hood Airflow Rates (CFM) and ASTM E3087 Capture Efficiency (CE) Ratings.—no changes to the table. There is a typo.

403.4.7.3.1 Field verification and diagnostic testing for local intermittent kitchen exhaust system. In 2021 code the intention was to do one of the following:

1. Airflow test in the field
2. Verify that the basic design was actually installed)

The new 2024 language in the section is meant to make this intent clearer.

407.1 General—decided to stay with current language.

Chapter 5
501.3.1 Location of exhaust outlets. Item 3 there is an ICC change that the State of Washington is adopting. In 2024 code the phrase is being modified: "Now except where the exhaust opening is located not less than ~~3~~**1** foot above the gravity air intake opening.
501.3.2 Separation of exhaust air outlets. This is similar section to section 401.4.1.1 and requires that you measure the difference between exhaust air outlets and other openings with string measurement. The exhaust cannot discharge into your unprotected opening on the exterior. It restricts exhaust air outlets by not allowing them to discharge within building openings with one exception…where air outlets are permitted by section 501.3 to recirculate air within the building or can discharge into an attic. CCAB indicated that language in the last paragraph has similar issues to 401.4.1.1.
[S] 501.3.2 Separation of exhaust air outlets. Exhaust air outlets and ducts discharging to the outdoors, as defined in Section 501.3, shall be located no closer to air intake openings, operable openings, unprotected openings, property lines, or other building elements than the minimum separation distance specified in Section 501.3.1. The distance is defined as the shortest "stretched string" distance measured from the closest point of the outlet opening to the closest point of the air intake openings, operable opening, unprotected opening, property line, walking surface or other building element along a trajectory as if a string were stretched between them.

Exhaust air outlets shall be located on the exterior of the building and shall not discharge within a building opening as defined by Section 705.9 of the International Building Code.

> **Exception:** Where air outlets are permitted by section 501.3 to recirculate air within the building or are permitted to discharge air to an attic, open parking garage, or enclosed parking garage they are not required to be located on the exterior of the building.

Note: Refer to Seattle Building Code Section 705.9 and Figures I-705.9a and I-705.9b for an illustrated example of a building opening in an exterior wall. Refer to ASHRAE 62.1 Normative Appendix B for further information on measuring the stretched string distance for the separation of exhaust air outlets and outdoor air intakes.

Action Item: Correlate with any changes made to 401.1.1.

505.3 Domestic exhaust duct—In 2021 code we defined enclosed vs. open kitchens that are open to living space in multifamily apartments. Even if you have recirculating range under exception 1, enclosed kitchens should not allow combustion cooking. Want to allow only for recirculating electric ranges, New exception that allows change in occupancy recirculating ranges in conversions

Action Item: Missing language: Need to copy from exception 1 and add to exception 3. "a minimum MERV filter or mesh filter (washable) for trapping grease."

50 cfm threshold minimum airflow continuous exhaust. You can have recirculating range hood but you need to have local exhaust in your kitchen and it can be combined with your CRV to limit penetrations in the exterior of the building.

501.3.2 Micah Chappell had a question about the 2nd paragraph of section 501.3.2.

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In 2021 SBC 705.8, Seattle has an amendment about areas not provided with exterior walls. This opening looks different from what people normally consider an opening. Could eliminate places where you could exhaust, for example—upside down wedding cake buildings. You can't discharge under the overhang. You have to discharge where it rains.

Decks are considered floor area so they would be considered a 100% open floor area, unless they have a grid pattern that allows smoke to get through. Seattle has always had the position that you can only exhaust air where it rains. Are there any exceptions to this? If the deck is more than three stories up—do we care? Stacked decks that don't vent—create floor area below—edge of the deck is to where we measure the property line. What is exterior wall for the purpose of 705.8, and this section. Jim Safranek says that the deck—the face of the deck is the opening from which you measure. Swing door at deck another opening. The SDCI interpretation of stacked decks that do not vent create floor area below—we treat the edge of the deck as the point where we measure fsd to the property line and also exterior wall for percentage of openings. Need to align SBC 705.8 with the mechanical code

Action Item: Let's look at the language; SDCI may propose different language. The language may be too specific as written. See also 401.1.1.
Action item: 501.3.2 should refer to 705.8, not 705.9(post meeting note…it will be numbered 705.9 because of changes in the 2024 IBC model code language..

[S]505.3 Domestic Exhaust Ducts.

> 3. Spaces undergoing a change in occupancy that were previously permitted under an occupancy other than Group R and that are being converted to Group R Dwelling or Sleeping Unit are permitted to use ductless range hoods in open kitchens. Ductless range hoods shall be installed in accordance with the manufacturer's instructions and continuous local exhaust shall be provided in the open kitchens with a minimum local exhaust rate capacity of 50 cfm, *listed* and *labeled* ductless range hoods shall not be required to discharge to the outdoors where installed over an electric range appliance cooking appliance. The local exhaust from the residential dwelling unit or sleeping unit kitchen area may be combined with other exhaust ductwork where the exhaust register/grille in the kitchen is a minimum of 6 feet (1.8 M) from the domestic range cooktop. The exhaust register/grille shall be provided with a

Change of occupancy (exception 3): An open kitchen is not a defined term in the code. If you aren't in an enclosed kitchen you are in an open kitchen. An enclosed kitchen is a space no greater than 60 Sq ft with a permanent opening. To be enclosed you can't be more than 60 sq ft. A kitchen not meeting this criterion is considered to be open. You could amend the definition to reference open kitchen. You have to prove you are enclosed to use the recirculating in an existing building where we are trying to limit penetrations in the existing vertical envelope.
Action Item: Consider modifying exception 3 or the definition to define what an "open kitchen" is.
Action Item: Make sure to add the missing sentence back in at the end of exception 3.

512.12.2 Wiring. Normally we strike this and direct people to the electrical code. Waiting to hear from electrical staff. Ken Brouillette: this is introduced in the Fire Code and Building Code. John: Mech inspection will send them to Electrical Inspection in any case.
Action Item: Verify that this matches the Fire and Building Code Sections.
Action item: 601.5 Should be some exceptions here from the draft CR103. Check to see if model code language.

Chapter 6
601.5: Item 10—indoor swimming pool enclosures—some exceptions overall exceptions are model code language.
4th exception—clarifies ERV system that is taking in return air but not mixing the airstream with the incoming outdoor fresh air. It can be taken from bathrooms or other type of space where it won't interact with the incoming fresh air for ventilation. Mechanical defines return air—relieved, exhausted, or recirculate. Exhaust air is a subset of return air.
Action item: Check 601.5 for exceptions in CR103. Item 10 is for indoor swimming pool enclosures. The 4th exception clarifies what is needed for ERV.

Chapter 11
1101.1.1 Refrigerants other than ammonia. This includes editorial clarifications that were part of the emergency rule that was adopted earlier this year by Seattle.
1101.2 Factory -built equipment and appliances. This is the most controversial proposal. Listed and labeled self-contained, factory built low probability equipment A3 using natural hydrocarbon refrigerants can select equipment from a NEEA Qualified Products list or can use equipment that is certified by a third party to comply with IEC 60335-2-40 as an alternative to the UL/CSA 60335-2-40 standard. With these proposals WA would be ahead of the rest of the country. Propane (A-3) is commonly used in Europe and they are ahead of US in their phase down of A2L's. Washington is proposing to adopt International Standards for use of A3 refrigerants. Equipment, including air chillers, would be located outside or in a refrigerant machine room. Substituting these A3 refrigerants with a lower GWP will decrease our impact on the environment.

Exception 2: Added "Where approved". Approval from code official is required. Would be 1st in the country to adopt an international Standard. HRI and the rest of the HVAC industry is opposing this.
Action Item: Seattle will need to figure out its approval process, storage and other issues, etc. where A3's like propane, are being used.
It's a small charge of propane—less than on your barbeque. Questions still to be resolved: how do you store it? Challenges to adopting this. Dept of ecology in looking at NY City by 2030 will phase out VRF. Ecology's report is due next Summer on A-3—natural hydrocarbons.

Testimony against the Proposal:
Tom Dearly—1101.2 Factory-built equipment and appliances. Current Factory Standards do not allow Group A-3 refrigerants. If we circumvent industry standards—we can't guarantee that these will be safe. ASHRAE standards—discussion of A-3's is ongoing. EPA SNAP, among other regulations and standards, is what we should rely on. The building codes shouldn't come first—should come after the research and the Feds figure out their approach. SDCI should reach out to fire service and ACCA.
Ken Brouillette—Washington Association of Fire Marshal's and Assoc of Fire Chiefs are against this. Rather wait until goes through the 2030 code process. SFD is most likely against it. Not ready for primetime. Number 1 issue is flammability. Cannot add an odor to it so leak detection is difficult. There are shipping, manufacturing, and a lot of logistical issues to install safely.

Response to testimony against the proposal: The upside of A3's is that they have low GWP and are very efficient. We essentially preempt the EPA on our phase down because state legislation says go faster than the EPA.
Jim Safranak asked if supporting European standards have been developed.
Eric Vander Mey stated: Yes, but the approaches between Europe and the United States differ. Europe is a phase down approach; US is phase out approach. A percentage of European equipment every year—50% equipment (A2L) and 50% have to be a natural refrigerant(A3). One virtue of adopting the standards is that the Building Official won't have to require an alternate means and methods request every time one of these pieces of equipment is installed.
Micah Chappell had questions about the terms "Low probability equipment" vs "low probability system". Low probability system is defined and states that there can't be any leakage into a classified occupancy. This may be prohibitive.
Eric Vander Mey pointed out that all refrigerant is in the equipment and located outside of the building. Not talking about HVAC split units. It's for equipment like chillers—The equipment is located outside so the refrigerant will leak outside.
Action Item: Need to make sure these terms "system" v. "equipment" and their definitions don't conflict. 1101.2.1 is a duplication so delete it.

1104.2 Machinery room. Jim Safranak asked about A3 propane being located outdoors on exposed rooftop locations. Eric Vander Mey replied that there are provisions for locating outdoors on a grid or on a roof and ASHRAE 15 describes where they might need to be open to atmosphere on a number sides—one face, two faces, etc and how far the units need to be from outdoor intakes, operable openings into the building or from depressed areas where refrigerants can collect. ASHRAE15 covers the flammability and asphyxiation concerns with refrigerants. Jim Safranak wanted to know if this has been vetted and approved by fire personnel. Have the allowed quantities of combustibles in rooms and the refrigerant been considered. The controversy here is over the listing. People are concerned about using something other than the UL standard, in this case an international standard. The UL standard is more restrictive on these refrigerants than the international standard being proposed. The international standards allow you to use a larger charge than the UL standard.

1103.1 High probability air conditioners, and dehumidifiers. State of Washington is eliminating the term air conditioning for human comfort and replacing it with the more current term "High-probability air conditioners, and dehumidifiers." This in alignment with the 2027 IMC language and current ASHRAE language.

1103.5 Corridors and Lobbies. This is being added as part of the emergency rule for the 20221 code to reference the latest requirements ASHRAE 15 requirements to deal with public corridors.

1105.7 Termination of relief devices and refrigerant piping shaft ventilation discharge air outlets.
Action Item: Need to coordinate references within note to IFC Section 608 with Ken Brouillette: Section 608.

Start at Section **1106.3 Class 2 and 3 refrigerants at next CCAB meeting. The last item on the agenda has been moved to the next meeting.**

Next meeting is on November 5, 2026.

4. Adjourn.