1. Roll Call and Introductions

2. Discussion and voting on IPC and DBC-IPC
   a. #320: IPC Section 403 (Also heard by IBC)
   b. #302: DBC-IPC Section 413.2
   c. #303: DBC-IPC Section 413.3
   d. #37: IPC Section 501.2
   e. #71: IPC Section 604.12
   f. (P99)414: IPC Section 1003.3
   g. #304: IPC Section 1003.3.2
   h. (P102)417: IPC Table 1106.2

3. Discussion and voting on IMC and DBC-IMC
   a. #54: IMC Section 309.2
   b. #23: IMC Section 403.2.1
   c. #19: DBC-IMC Section 404.1.2
   d. #29: IMC Section 506.3.11
   e. #30: DBC-IMC Section 506.3.13.2
   f. #31: IMC Section 506.5.2
   g. #32: IMC Section 603.17

4. Discussion and voting on IRC PMG proposals
   a. 306: DBC-IRC P2716
   b. 307: DBC-IRC P3003.9.2
   c. 308: DBC-IRCP3005.2.4
   d. 309: DBC-IRC P3103.1

5.

Please note that any items that we do not get to in this hearing will be automatically transferred to the next scheduled hearing date and will be the first items on the agenda for that hearing.

IMC/IPC/IFGC Committee Hearings go-to-meeting for those who can’t make it in person

Please join my meeting from your computer, tablet or smartphone.
https://global.gotomeeting.com/join/731466413

You can also dial in using your phone.
United States: +1 (571) 317-3122

Access Code: 731-466-413

New to GoToMeeting? Get the app now and be ready when your first meeting starts:
https://global.gotomeeting.com/install/731466413
Proposal # 30
Revise Commercial Kitchen Hood Ventilation System Ducts and Exhaust Equipment to say pollution control unit instead of scrubber system. Update current amendments to match revised section in the 2018 IMC.

Public Testimony in Support: None
Public Testimony in Opposition:
Public – Propose modification. Removal of 95% seems vague. Efficiency should be included and be increased with heavier duty appliances. Should mention test standards. Exhaust outlets shall be permitted to discharge when a pollution unit is present.

Concerns with 52.2 may be locking out electrostatic precipitators. Support for the testing for electrostatic precipitators.

Original Motion: As-Submitted (AS) 2nd

Questions from the Committee to Proponent:
1. Are other manufacturers testing to that same standard?
   a. Some are, some are not testing at all.
2. Is this the right standard?
   a. 52.2 is right for filtered units, not sure for ESP, not sure there is a clear one right now.
3. From an enforcers view, how would you like to be able to see enforceable standard?
   a. Go with or equivalent or the governing jurisdiction.

Committee Discussion:
Performance of unit lets in 95%, only based on type of filters, does not address replacement filter

Issue for designers is what do we need to meet. What is the best standard for this?

0.3 95% higher end of efficiency.

Don’t want to exclude electrostatic precipitators.

Seen manufacturers supply us with test report EN779 standard European standard, not sure if it includes electrostatic precipitators.

Could we say 52.2 or EN779, both used for efficiency for electrostatic precipitators because ASHRAE test does not apply to them.

Final Vote: AS 0-6 Fails
New Motion: ASM

Modification: Exhaust outlets shall be permitted to terminate through an exterior wall when a pollution control unit is used. The pollution control unit shall have 95% efficiency at the particle size of .3 microns in accordance with ASHRAE Standard 52.2 or equivalent

All PCU’s have to pass 95% at .3 microns.

Idea is something measurable and attainable.

There will be some manufacturers that won’t be able to meet this, but these are definitely good filters.

Vote for Modification: 6-0 Passes
Proposal # 31
This proposal clarifies requirements for the installation of PCU’s.

Public Testimony in Support:
Proponent asked to clarify and make some changes and bring this proposal back today. All PCU’s requested to be included in one spot.

Public Testimony in Opposition: Line 19 states fire protection required in duct work NFPA sited here. Misrepresented NFPA 96 only requires unit to have fire suppression, 9.3.3.1 requires the fire extinguishing system. Never states fire protection required in duct work.

Suggested wording “the fire protection system installed within the Pollution Control Unit shall provide protection for the component sections of the equipment, and ductwork downstream of the equipment. (NFPA 96 2017 9.3.3)”

Questions from the Committee to Proponent:
1. How far do we want it to protect?
   a. This was just to match NFPA.
2. Does that come with a specific listing stating how much it covers?
   a. Doesn’t state any protected duct after the unit.
3. How is NFPA 96 shown compliance with? What’s typically been done?
   a. Not typical to measure how far down the unit, just wanted to match with NFPA says.

Original Motion: A/S with Intent to Modify (ASM) – 2nd
Modification: #19 The fire protection system installed within the Pollution Control Unit shall provide protection of the component sections of the equipment, and ductwork downstream of the equipment. (NFPA 96 2017 9.3.3)

When submitted 20 ft ductwork down stream it should be listed how that is covered. That is what NFPA asks for. Intent of NFPA 96 fire suppression in unit so it doesn’t spread into the downstream ductwork.

Not asking for new system, just saying current installed shall protect downstream, not extending.

Vote on Modification: 6-0 Passes
Final Motion: As Modified (AM) – 2nd
Final Vote: 6-0 Passes

Proposal # 71
The Denver building department has reviewed multifamily designs where the designer has provided a domestic cold water system that routes through a central chiller and uses the same pipe to provide space cooling and domestic water supply to the dwelling units and is discharged through toilets and is reheated for use in lavatories, sinks, bathtubs, and showers. This saves the owner on first costs of a separate chilled water supply (a return is still required in this type of design), but is wasteful with respect to energy and will likely cost more in the medium to long run in operating costs (passed on to tenants) vs. the initial saved cost.

Public Testimony in Support:
McCoy Sales – Systems are helping get around green roof requirements, is one of most efficient at Mariposa, facility in Denver there was submitted data to be forwarded to the committee that
details the energy savings.

Williams Comfort Products – Integrated piping systems, been around for years, concern that you would take this out to cool the building and then use it to flush. Denver Housing Authority shows IPS is the most efficient over 5 or 6 other systems. Water has been cooled and now can be flushed. Cooling season in Denver 4,000 cooling hours 5,000 heating. We need about 50-degree water to cool water in summer. Of 4,00 cooling hours ½ of them the water would be too warm and some flushed, other ½ water is cold enough and can give you free economizer savings. Offset by advantage in cooler seasons. Takes more horsepower to pump BTU’s our system is water, it is efficient in moving BTUs, use chillers more efficient.

Analyzed and seen performance on multi families with these systems, seeing that the chillers part load efficiency is much better, they operate very efficiently even with additional water pulled in the summer. Doesn’t make sense to exclude it.

Seeing 15% savings with these systems.

**Public Testimony in Opposition:** Proponent – Designs in multifamily where domestic water run through chiller serving fixtures in units, water heating, concern is energy waste.

**Public Testimony in Support Rebuttal:**
How much time are you getting peak demand out of domestic water system? Not question of flow rate, temperature of the water, for the summer months it’s a judgement, benefit from economizer cooling in other months, it’s a wash. No penalty in this market. If you go north you get a benefit for the cooling, move south it becomes a detriment.

Delta T is only giving you cooling certain times a year.

**Questions from the Committee to Proponent:**
1. Are these 2 separate systems?
   a. System that uses water pipes pump that water, costs money, to save money use another piping system in the building you can do double duty with this system. In early stages of this system, for cooling used fire protection system. Didn’t work well, we settled on domestic water.
2. 4 pipe fan coils?
   a. Yes
3. During winter what keeps circulation going in cold water coil and cold-water system?
   a. Use small circulators into the unit and back out.
4. How do you prevent stagnation?
   a. ASHRAE 188, legionella can grow in systems if left to stagnate, have circulator once a day 5 minutes flush out and bring in fresh water. Complying with ASHRAE and Denver Building Code. Has potential to purge up to 3 times a day 1-3 times a day comes standard.
5. Do you have conflicting data to what they are saying about cost efficiency?
   a. No information on cost savings.
   b. Opposition does have cost savings and energy efficient data to support.

**Original Motion:** Disapprove (D)
**Final Motion:** Disapproved (D)
**Final Vote:** D 5-0-1 (1 abstain
Additional staff or committee comments for the record:

Proposal # 303
Delete Denver Amendment on Discharge into Grease Receptors as it conflicts with new sections of the IPC that prohibits such drainage.

Public Testimony in Support: Removing this section due to new IPC section 1003.3.2 Food Waste Disposers Restriction which pro

Public Testimony in Opposition: Don’t dis include currently, we are fine with this amendment as it stands. Would like to keep what Denver currently has. Any food prep should go through the grease interceptor.

Original Motion: Disapprove (D) -2nd
Questions from the Committee to Proponent:

Committee Discussion:
Denver allows vegetable prep to bypass grease interceptors.

Food prep area, any fixture should be run through Grease interceptor, anything bar related doesn’t have to be.

Adding requirements and grease interceptors going higher and higher. Restaurants getting bigger is the issue, though driven by seating capacity we have to consider the needs change.

Final Motion: Disapproved (D)
Final Vote: D 5-0-1 abstain

Additional staff or committee comments for the record:

Proposal # 304
The current Denver amendments add a new section 413.3.1 that requires food waste disposers to drain to grease interceptors, yet this is contrary to this new section in the 2018 IPC that prohibits such drainage. It is understood by the proponent that this current amendment is derived from the Denver Public Works department and may have a significance that is unique to Denver’s wastewater treatment system and methods. There are two proposals for this subject. Option one modifies the Denver amendments to fit the IPC and Option 2 (this one) modifies the IPC to fit the current Denver amendments.

Public Testimony in Support: Grease Interceptors.

Public Testimony in Opposition: None

Questions from the Committee to Proponent:

1. Concern about grease interceptors going septic.
   a. Best management practices should alleviate that, should have them pumped 3-4 times a year. This maintenance falls on the tenant or owner.

2. Being conservative increases the chances of it going septic?
   a. No requirement on cleaning, up to tenant, recommend a few times a year, if they are having issues, they would have to address. Not a lot of authority once it’s installed. We are comfortable with size we are telling people.

Committee Discussion:
There has to be a reason why it was put in in 2018, opposite of what we are doing here in Denver.

Denver allows solids interceptors.

Original Motion: As-Submitted (AS)
Final Motion: As Submitted (AS)
Final Vote: AS 6-0
Proposal # P99

The purpose of this proposed amendment is to reduce confusion regarding the conflicting requirements of the base IPC and the requirements of Wastewater Management Division (WWMD) and Department of Public Health and Environment (DPHE)

Public Testimony in Support: Proponent - Waste water requirement- what goes to grease interceptors and what doesn’t. Last proposal struck a portion I am striking. Require all fixtures in kitchen to be taken to grease interceptors except bars and beverage stations. Food waste disposers are addressed here as well.

Waste Water Management representation agrees with what is proposed.

Public Testimony in Opposition: None

Questions from the Committee to Proponent:

1. Remove all 8 subsections and replace with new 5 subsections?
   a. Yes, that is correct

Original Motion: As-Submitted (AS) -2nd Great to clarify this and redirect people to Waste Water since that is what we do currently, this just puts it in the code so it’s clear.

Committee Discussion:
Difficulty with calculations at core and shell. Denver could incur liability here. If we just guess at the number of gallons needed for grease interceptors and then the building ends up filled with fryers we could be in big trouble.
   Is there better guidance to lead people down an appropriate path for core & shell.
   When Waste Water is actually looking at the project there are mistakes within the projects that can make those requirements lower.
   Intent was to defer all of this to Waste Water Management.

Hydro mechanical section is great, gives the opportunity to have more conversations.

Calculator filled out one way produces a large number, if you chop up into little units you come up with a smaller number.

Another section omitted, 10003.8. direct connection, being struck out. Does that need to be added back in?

Intent was to strike that to make more clear that a cast iron under a sink is not a grease interceptor.

Final Motion: As Submitted (AS)
Final Vote: AS 5-0 Passes

Additional staff or committee comments for the record:

Proposal #320
All Gender Restroom Proposal
Committee Discussion:
Needs to be tabled until 7/31
Committee requests that #492 approved in IBC be available in their folder or sent to them to review.
Questions about why we can’t remove Chapter 4 and refer to them to the IBC. Refer them to IBC and don’t try to mirror between IPC and IBC.
Possibly have proponent for #492 involved in 7-31 meeting. Committee looks for further clarification on their role in this decision.

Proposal # 302
Public Testimony in Support: Match current amendment and carry over to commercial food waste disposers. Changed to 2 inches from 1 1/2.
Original Motion:  As-Submitted (AS) – 2nd
Support: Just means it’s a 2-inch connector.
Final Motion:  As Submitted (AS)
Final Vote:  AS 6-0 Passes
Additional staff or committee comments for the record: