

IMC, IPC, IFGC Committee Hearing # 2 Minutes

May 4, 2022 From 2 p.m. – 5 p.m.
City and County of Denver

1. Roll Call – 10/10 Voting Members are in Attendance, 9/10 at 3:42pm

Committee Member	In Attendance?
Mark Jelinske	XX
Brian Kannady	Ed Hornfeck as SubX
Gary Cardenas	XX
Michael Passas	XX
Matt Edwards	XX
Jeff Tejral	NON-Voting
Austin Krcmarik	XX
Danny Boncich	XX
Chuck Bartel	XX
Frank Gonzales	X
Louis Jugert	X

2. Discussion and voting on proposals

- a. [#P9.1](#) IMC Standard References Update CH 15 (Previously tabled)

• Discussion:

- Chuck: Looking at the 2024 proposals, there are amendments to the IBC and IFC. If this committee moves this forward, the 2024 IFC and IBC language will be adopted as well regarding refrigerants. Would need to make sure that the 2024 IMC amendments do not need to pull in.
- Mark J: Would the fire dept defer to ASHRAE 15?
 - Chuck: Tony read the amendment in Ch 50 and he understood how they were pulling this in and it specifically points to the IMC. No controversy at the national level for the 2024.
- Mark J: How would this be done procedurally if we cannot bring to a code hearing?
 - Chuck: May reach out to committee for input, but it likely will not go to a committee hearing prior to council.
- Mark J: Would hope that it would be fairly well coordinated with IECC. And have the 2024 language included . Anything missing could be documented through policy?
 - Chuck: Yes if needed.

- Motion to approve as modified with the ASHRAE 15 with the understanding that the 2024 IMC proposals may need to be brought forward.
 - Shaunna: Do we still need to change the reference to the IRC?
 - Chuck: Yes, the proponent agreed to the 2024 reference standard.
 - Motion to approve as modified with the ASHRAE 15 with the understanding that the 2024 IMC proposals may need to be brought forward and include the 2024 IRC reference standard.
 - For (9), against (0), Abstaining (1)
- b. [#67](#) IPC Mandatory Irrigation Controls. Out of DGC to IPC
- Public support:
 - Lindsay Rogers: Castle Rock and Aurora have moved forward with automatic controllers.
 - Public Opposition: N/A
 - Discussion:
 - Is this is intended for the IPC and IRC?
 - Yes, that was the intention because the DGC covers both
 - Ch 13 is non-potable water, is that the intent?
 - Yes, conserving both nonpotable and potable water, but where is the Ch 13 referenced?
 - It is in the next proposal.
 - Need to figure out where this is placed, approved conceptually first.
 - Chuck: What is evapotranspiration?
 - It is about the capability of the controller with sensors or weather data. If it is on a timer then it would not adjust to the rain. Denver would just need to confirm it is an automatic smart controller.
 - Mark: What would they be needing to review? Seems to be more than just checking the right controller. It's another level of expertise that requires the permit reviewers to know.
 - Danny: It was mentioned that other surrounding jurisdictions have similar language, do you know if this was coming from a plumbing code? Would this require a license plumber to install or could it be some other license?
 - Kristen : Typically installed by an irrigation contractor.
 - Danny: Could be something about a deferred submittal or when and how it gets inspected.
 - Jeff: Most other jurisdictions in their landscape code and it is

attached to the CO. So the question where this goes within the IPC or can we suggest this goes into a landscape code.

- Christy: We don't have a landscape code and we've been trying to coordinate with other organizations. We are hoping to include it in a future landscape code, but in the meantime, we'd like to propose that it lives here if the IPC Denver team are able to include it in their review.
- Michael: This will need to be permitted so if we put this in the code, then those drawings will need to be stamped. The intent is good, but I don't think the plumbing code is the right place to put it.
- Shaunna: There is an opportunity to rename Ch13 to not only say non-potable water or add a Ch 15 to cover it and we can clarify inspection.
- Frank: If we end up doing a permit for this, at that point will we be triggering a plumbing inspection for it.
 - Christy: I don't think anyone inspects irrigation systems right now.
- Mark: Evapotranspiration rate in the body where it talks about controls, it calls out both weather data and evap.
 - Typically you can use weather data to call out evapotranspiration rates or you can use a soil moisture reader.
 - Does that mean you can have a soil moisture sensor?
 - A Water Sense system has both evap and water moisture sensors. The process for can be either weather based data or soil sensor to get the same data of evap.
 - Austin: Basically weather data is going to be all rain, heat, etc with is used to calc your evapotranspiration data.
- Public Rebuttal:
 - Lindsay: Landscaping standards are typically where we would see this language.
- Discussion:
 - Shaunna: Used Evapotranspiration and weather data but controlled by weather data or soil moisture. A modification should take out "that use ET data" to clarify that the ET data is required.
 - Matt: Is this something that will actually be enforced? It sounds like it's

not the right fit for this code. Will irrigation designers know to look here?

Should someone that is an irrigation consultant need to seek out a stamp.

- Mark: Landscape need to find a professional stamp. Is this the correct spot? I do not have the expertise so I would defer to the people that would enforce it.
- Chuck: Not qualified to speak to the technical substantiation so whether it belongs in the plumbing code. Looking up Aurora, I only see a rebate system and they have a whole structure and team for landscape design.
- Kevin: Do we agree with the proposal context, just not the placement?
 - Chuck: I don't think that we have the expertise to review the code.
 - Mark: Would like to see this passed but not sure this is the right place
- Motion to approve as written with the intention to find a place outside of the plumbing code. (No Second)
 - Shaunna: If the committee approved this then the energy code committee would just have to approve it? Or does the committee have to approve it again?
 - Christy: It would have to be approved by another committee from a process standpoint, but I do not know where else this would fit.
 - Chuck: This needs to go in a landscape code, but without identifying the resources then I would vote to disapprove.
- Motion to disapprove this proposal
 - Austin: Agree that this needs to move towards a landscape code. Just saying that we don't have any jurisdiction on land
 - Christy: Office of the city forester is in the process of updating the requirements and I think Denver water is involved in that process and the urban tree discussion that is tied to that.
 - Mark: Should be under Denver water purview.
 - Michael: Agree with Mark that the irrigation can go to the Denver water department.
 - Austin: Unfortunately we served more than just Denver, we do not have that authority that you're suggesting.
- For **disapproval (7)**, against disapproval (0), abstaining (1)

C. [#P34.1](#) IPC 1301 Landscape Water Budget

- Motion to Disapprove
 - Austin: Curious from a process standpoint, does us approving any of these get the city to move forward with landscape provision
 - Christy: Approving might help, but I don't expect it to be the thing that gets the process going
 - Shaunna: Because these are recorded and the minutes are kept, it is important that you depict your opinion whether or not you believe it should be included in the code.
 - Jeff: The city needs to include what the city landscape is going to look like over time and with drought consideration. How does this move into the planning that the city does.
 - Michael: There is a requirement in CH 13 that requires inspection, just mentioning.
- For **disapproval (7)**, against disapproval (1), abstaining (0)

d. [#P34.2](#) IPC 1301 Sub metered Irrigated Landscape

- Questions:
 - Chuck: What does it mean that the flow are abnormal, is this language for if something breaks? Where is the data intended to be sent?
 - Austin: The flow meter sensor is absolutely if a line breaks. Most send the data back to the irrigation timer and whatever interface you have to display how many gallons are used.
 - Mark: What is meant by a flow sensor and how does that differ from a flow meter?
 - Lindsay: Those terms seem to be used interchangeably. The intent is that a volume of water is measured.
 - Mark: I could see a code minimum being included without specifying what the data is used for. We can include that they at least buy the equipment in the code. What is the opinion of just having the ability to measure as opposed to enforcement language?
 - Lindsay: I would be in favor of this.
 - Danny: I don't believe this need to be review so this is easier to swallow and navigate in the city.

- Chuck: I concur, but I don't know the readily available flow sensors that integrate with sprinkler system.
- Motion to approve as modified to strike "with flow sensor and/or landscape areas"
 - Michael: I could take it a little farther and remove the transmitting water data
 - Austin: The initial intent is not just to submeter but also to help manage water usage on site.
- Approve (6), against (3), abstaining (0)
 - Michael: "Flows are abnormal" what does this mean?
 - Shaunna: Could be a better way to specific abnormal flows
 - Chuck: What are those flows supposed to do if those flows are abnormal.
 - Mark: Accepting that the sensor just has to have the ability
- Motion to approve as modified to strike "sensor" from the last sentence.
- Approve (9), against (0), abstaining (0)
- Matt: struggling to understand the intent if it is to shut off in the event of failure.
 - Michael: Agree with Matt
 - Shaunna: Change last sentence to shutoff when there is an abnormal spike in flow
- Motion to strike the last sentence
 - Austin: Installed but does nothing, adds cost without of benefit as it is not alerting anything at this point
 - Micheal: How will you make an intelligent decision that something is abnormal, there is not engineering behind it.
 - Chuck: There are other areas of the code requiring submetering
- Approve (7), against (1), abstaining (1)
- Motion to approve as amended
- Approve (9), against (0), abstaining (0)

e. [#P34.4](#) IPC 604 Max Flow Rates and Water Consumption

- Chuck: Bathroom Sink Faucet is a new a category, how do you differentiate that from private or public lavatory?
 - Shaunna: You would have to call that out
 - Austin: Bathroom sink faucet is more in a residential/MF setting and a lav

faucet would be for commercial settings

- Michael: Water flow for the urinal- how many manufacturers provide this?
 - Lindsay: American standard, sloan, proflow, kohler, etc. the biggest brands are covered. They are in the \$250- 600 range
- Mark: Is your intent to exceed watersense on some of these?
 - Lindsay: Yes
- Mark: A sink faucet(the original language) would cover the requirement, but im not concerned about the value. A sink is generally understood by the industry as is a lavatory.
 - Lindsay: I am comfortable with the intent of changing the naming of plumbing fixture.
- Shaunna: Would suggest changing it to residential sink
- Chuck: Is kitchen sink intended to be residential?
 - Lindsay: Yes
- Matt: To set water closets to 1.1 could have unintended consequences, has there been testing that goes along with that.
 - Lindsay: Water sense has done a lot of testing and Denver water has done testing with 1.1gpm.
 - Austin: Can add links to studies if that is helpful
- Discussion:
 - Matt: Would not like to go past 1.28 gpm and I would need to study that
 - Austin: Would be updating to match state statute that has been place since 2016
 - Chuck: Tank type or flush valve?
 - Matt: Flush valve
 - Michael: Most complaints in hotels is about the 1.8 gpm for the showerheads.
 - Austin: A lot of the work Denver water does is on tank ttype. Matt would you be open to splitting out flush valve and tank type?
 - Matt: Yes, but keeping the flush rates the same
- Motion to change water closet flow to 1.28gpm and breaking water closets out into 2 categories.
- Approve (9), against (0), abstaining (0)
 - Mark: What meant by temporary override?

- Austin: Allow for a flush
- Mark: What about prerinse?
- Austin: I agree the underlying table that Shaunna highlighted is confusing
- Motion to strike “Bathroom” and include “Other than Kitchen”
 - Chuck: I think we are altering the intent of the proposal, since the bathroom sink is basically a private lavatory, but that is still at 2.2 gpm.
- Approve (8), against (0), abstaining (1)
- Motion to change private lavatory to 1.5 gpm
- Approve (8), against (0), abstaining (0)
- Motion to approve as written and modified.
- Approve (9), against (0), abstaining (0)

Meeting adjourned at 4:58pm