



Meeting Notes – 2018 Seattle Energy Code Public Meeting
August 27, 2020

SDCI staff present

Ardel Jala, Jenifer Gilliland, Merria Norris, Micah Chappell, Duane Jonlin (facilitator)

General Public present

Gia Mugford, Lee Richardson-CFM, Russell Cook, Adam Neugebauer, Bill Babbitt, Doug Edwards, D. Crawford, Andi Burnham, Alex Burnham, Alex Crawford, Andrew Pultorak, Cam Iseri, Caroline Tr., Alex Shrode, Austin Bonnes, Chris Falcetti, CJ Brockway, Danielle Gardner, Dan Kelly, David Nehren, David Norris, David Park, David Reddy, Doug Edwards, Eileen D. Thomas, Emily Caeasco, Eric Vander Mey, Eworks, Peachie, Greg Gilda, Haley, Howard Kellogg, Ian Robinson, Ivan J., Jason Acosta, Jess Wallach, Jireh Peng, John Lee, John Putre, Joshua Howell-Exxel Pacific, Kris Johnson, Krishnan Gowri, Kurt Vick, Laurel Schandelmier, Lee Richardson-CFM, Lisa Epinosa, Lisa Hawkins, Mark Glodowski, Mary Hamann, Matt Hanes, Matthew Veloz, McKenzie Walters, Michael Bigelow, Michael Thomson, Mike O'Brian, Mike Riggins, Mugdha Mokashi, Nathan Miller – Rushing, Nick Rollins, OB360, Olivia Vidmar, Peder@Hermanson, PLS, Reed Rushing, Richard Meell, Ron Kiel, Ron K., Russell Cook, Ryan OB360, Sadie Mansour, Sanny Wilkins, Shashankdingh, Saun Darragh, Tanvi Dhar, Todd Kuhn, Tom Barr, Tommy Booth, Treasa Sweek, Val, Walsh Preconstruction, WESTIN Salto, Aaron Whitlaton, Alemseged, Amarpreet Sethi, Ben Roush, Ben Gezan, Brain Christensen, Carol Sherman, Christine Bunch, Cody Jackson, David McCaughey, Kathleen Petrie

Duane Jonlin (SDCI staff) first described the general intent of the code change proposal, and then introduced and explained each of the significant code changes on the agenda. The following are discussions of specific proposals that took place during the meeting.

Questions from the general public:

LAUREL.SCHANDELMIER: Consider clarifying operational carbon vs embodied carbon in this code language?
Duane – This cycle we are talking only about operational carbon. We made an attempt to incorporate embodied carbon from concrete and structural steel, but it was too complex and the infrastructure that we need is not in place but hopefully we will get that started by next code cycle. This cycle we are talking about operational carbon.

LAUREL.SCHANDELMIER: If the through-wall PTAC area is less than 1%, is it still included in UA calculations?

Duane – No.

Treasa Sweek: Through wall PTAC clause should also include the exterior wall area that has a split system installed. The installation process that happens to put a split system in the wall means that the wall has very little insulation behind the split. So there are gaps in between the penetrations. I'll send photos.

Duane - Not sure if that is accurate. Typically, we will insist that only the refrigerated piping would be penetrating the wall at that point. If you want to further argue that point please do so and we will look at that. Penetration should be sealed all the way around.

LAUREL.SCHANDELMIER: Maybe Treasa can clarify? My question was about the 1% area

Gia Mugford: I think that area will be much smaller- only the penetration should be the issue?

David Nehren: Agreed, the units are typically mounted to the walls - maybe just the piping thru would be the issue but it is so small in comparison...

Ben FSi: Solid point, Treasa--and I see that all the time in splits and also PTHP/PTAC

Duane - Sounds like an enforcement issue with inspectors. For the penetration replacement before they have been covered up to see how well in has been done.

Scott Rushing: Calcs will allow a very limited amount of balcony. What is the thinking with limiting it to a single floor if the building's full extent of balcony is greater than 25% of a single floor? Why does it matter if it is two floors or one floor?

Duane - This would not include areas base building office areas of the lower floors of a tower but would be those typically residential floors all the way up and those areas of the base of the building are unlikely to ever have any project balconies. Please send this comment so I can look at it and see if it needs to be adjusted.

SUBSEQUENT ACTION: We will delete the 25% maximum from the draft.

Eric Vander Mey: Are condenser air intake and exhaust louvers exempt?

Duane – Yes. This rule is just for mechanical equipment. (You have to move air into and out of the building so if you put insulation in the building then the air would not move so well.)

David Nehren: If we have a large system with many units and it exceeds 1% of wall area then does this still allow for a prescriptive compliance path as written?

Duane - Yes, you could have PTACs penetrating the wall at 4 percent of the wall area, but then you would have to make other parts of envelope significantly better. When you have a U-value that high, it is difficult to balance out with other parts of the envelope; However, if you can do it through the target UA calculation then go ahead.

Gia Mugford: it will punish the performance of that floor?

Andi Burnham: is "site built" defined?

Duane - It is defined in another publication, but we are using "site built" for fenestration systems that do not come with completely assembled from the factory with a sticker on them. Let me know if there is something in the list that I did not put there. It is all the things that are not factory made.

Andi Burnham: Do the UA calculations required for C407/C401.3 have the same 30% allowance and high-performance fenestration performance for up to 40%? **DJ check**

Eric Vander Mey: General Question on C402. R value compliance method vs the u value compliance method. Modified the tables for the equal categories and footnotes so thinking about proposing an amendment that limits the R value compliance method to new buildings less than 5,000 sq ft or additions that are 5,000 sq ft basically making them comply with the u value method and that is it to help equalize the playing field paths are completely equal now, trying to get an opinion of SDCl.

Since C402.1.3 R-Value and C402.1.4 U-Value are no longer equal in the categories and footnotes would SDCl be open to limiting C402.1.3 compliance to new buildings and additions less than 5000S

Duane – We rarely get a project that does not use the UA method for anything larger than house size. Everyone has an adjustment they want to do in the envelope components. We will not reject something larger than a house but I have rarely seen it. If you want to pursue this idea, lease send me some language and send me some bullet point on the logic behind it.

LAUREL.SCHANDELMIER: I have a question about mass transfer deck slab edges. Under the prescriptive R-value approach, there is no insulation requirement (because insulation cannot be installed). Under the U-value approach, the baseline is U-0.20, or approximately R-5. What is the rationale for incurring a penalty under the Target UA approach but not the Prescriptive approach for this condition?

Duane – There is something for those in R value in the table. If you are doing something using the R value for mass transfer deck there is no possible way, so there is not a requirement. The rationale for the U-value is not strong for that specific number because it was a compromise after a period of discussion. We did not want to penalize it as badly as other exposed concrete thermal bridges

Nathan Miller, Rushing: Question on Table C402.1.4- The entry floors where "concrete column or wall penetrating thermal envelope floor" has a lessor U-factor than "typical" floor but not as relaxed as an uninsulated assembly:

1) Seems like another area where R-value path is more relaxed than U-factor calc, it would never be accounted for in that compliance route.

2) SDCI reviewers had been enforcing the un-insulated columns preventing floor insulation in 2015 cycle, but adding in a bunch of walls that prevent floor insulation (like in at the top level of the parking garage) seems like a massive penalty in a UA calc that is essentially unavoidable. Only exception is walls at "perimeter".

Duane – 1) this is a problem that has been going on since we started energy codes is that the columns that extend down into the parking garage from the building and R-30 insulation into the floor and then have 2 x2 ft concrete penetrations coming down into carrying a lot of heat. If someone would come up with a sensible solution, we would take it, and so would every other code in the country.

2) If you want to pursue this idea, please write something up on it. We have future schedule meeting for revisiting these types of issues (on September 24).

LAUREL.SCHANDELMIER: Is Target Performance Path going to be covered at another meeting?

Duane – Yes, it will be covered when we do modeling (on September 10).

CJ Brockway: For spaces where we have found specific problems (like hospitality corridors), is there going to be a process for registering concerns?

Duane – Yes, the process is now. If you know of specific issues where something is not workable, please let me know what it is so we can work on a solution.

CJ Brockway: With the remodel process we are seeing challenges with existing lobby infrastructure that is not set-up for code-compliant lighting controls. It seems to be causing owners/developers to decide to not upgrade their entire lighting packages to more efficient systems due to excessive initial costs.

Duane – I need more specific information on what the issues are and how those are impacted by Chapter 5 rules for existing buildings. Not all rules for new buildings must be followed when doing existing spaces.

Haley: Recommend revising the range load to 8000VA to match NEC 220.84 language

Duane – Yes, it is already done, based on comments from SDCI electrical staff.

LAUREL.SCHANDELMIER: Are combined range + ovens given allowance for each? or a single allowance for the combined appliance?

Duane – It is intended to apply to combined range/oven units. This is a good point and we should clarify it in the draft.

Eric Vander Mey: One questions on C401.3.6.1 - Record drawings - do these need to be submitted to SDCI or just returned to the owner within 90 days?

Duane – You do not have to submit them to SDCI; they would go directly to the owner.

Michael Bigelow: How are we assuring that the "solar ready" area is appropriate for solar? i.e. not shaded.

Duane – The rule here refers to solar readiness that deals with shading, so they have not changed from our current code. To match with the State code, I switched the C411 and C412 section numbers.

Aaron Whitlatch: So is C412 mandatory for TBP and TPP? Should it be added to table C407.2?

Duane – The intention is that the solar readiness be mandatory but the solar itself be tradable. We will clarify the reference back in 411 to make sure it is clear.

Andi Burnham: If PV is installed on an affordable housing site via Exception 3, that housing project will have ownership of the system and is able to use the credit for their code and/or bond funding, correct?

Duane – Yes.

Andi Burnham: Is the offset requirement in discrete 1/3s for the C407 credits? or if you install 50% PV capacity, are you able to show 1.5% lower BPF (in between 2.1 and 2.2) for example?

Duane – We wrote those two exceptions in order to make the arithmetic easy, but if you want to do half and half, or some other proportion, then please make that request.

Andi Burnham: My question is not 1/3 vs. 1/2 - it's is the requirement a linear sliding scale based on capacity? or tradeoff is only in chunks of capacity? For C406 trade off it is a point so that a straightforward delineation tradeoff but for C407 if you install 50 percent of the pv capacity are you able to 1 to 3 percent be pf tradeoff linear scale? If you buy few extra panels to complete your row it is over your 1/3; what do you do with your extra panels? Is it in chunks or can you pick your bpf tradeoff as your linear to 0 to 3 to how much you have installed?

Duane – If you would send me code alternate request and say that you installed 40 percent instead of 33 percent of my required solar; can I take that for my reduced bpf I would say yes. I would permit other percentages.

LAUREL.SCHANDELMIER: To clarify, the C412 on-site renewable system is required at the full capacity calculated even if it requires a larger area than the C411 solar readiness solar zone? A very shaded roof might also have a very small solar zone

Duane – Yes, the PV array could exceed the required solar zone size, especially if a building has an extensive roof deck like we see on some of the upscale residential buildings. If the entire roof is heavily shaded, then the design team will likely select one of the alternatives.

John Kearns: Just to clarify, C412 is not mandatory for TBP, but your BPF is adjusted based on the amount of PV provided?

Duane – Correct.