



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

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### STATE BUILDING CODE COUNCIL SUMMARY MEETING MINUTES

**LOCATION:** Centerplace, Regional Event Center  
2426 N Discovery Place  
Spokane Valley, WA 99216

**MEETING DATE:** Friday, September 13, 2019

**Members in Attendance:** Chair Doug Orth, Vice-Chair; Diane Glenn, Leanne Guier, Traci Harvey, Kjell Anderson, Andrew Klein, Eric Vander Mey, Micah Chappell, Steve Simpson, Kevin Shutty, Al French & Todd Beyreuther

**Members Absent:** Robert Graper, Phillip Lemley & Barry Long

**Staff in Attendance:** Richard Brown, Managing Director; Krista Braaksma, Ray Shipman & Carrie Toebbe

**Visitors Present:** Ken Moore, Ryan Robinson, Leah Hauer, Preston Ochsner, John FiField, Suzanne Mayr, Corey Condron, Eric Stone, Kelly Sellers, Dermott Murphy, Timothy Steiner, Pauline Druffel, Owen Mir, Larry Andrews, Grant Falco, Alan Nolan, Kieran Sprague, Dan Gladwill, Ian Dahl, Lamant Worden, Brian Parker, Elizabeth Williams, Phillip Linwick, Carolyn Logue, Judy Fitzpatrick, John Church, Gregg Achman, Mark Russell, Blake Dickson, Jim Ugle, David Camp, Larry Andrews, Bill Wing, Tonya Beavers, Gary Dickson, Maren Longhurst, Troy Olsen, Chuck Murray, Louis Starr, Rich Dalean, Larry Andrews, Shilpa Surrana, Jim Tidwell, Paul Armstrong, Carolyn Logue, Marc Nard, Jeff Shapiro Suzanne Mayr, Anne Anderson, Dave Kokot, Greg Rogers, Larry Andrews, Shane Nilles, Helen Walter-Terrinoni and Samuel Jefferson

Agenda Items	Council Actions/Discussion
1. Welcome and Introductions	Meeting called to order at 10:02 am by Chair, Doug Orth. Everyone was welcomed and introductions were made.
2. Review & Approve Agenda	The agenda was approved as written.
3. Public Comments not on the Agenda	None
4. Review & Approve July 26, 2019 Minutes	The minutes were approved as written.

5(a). Public Testimony	No public testimony was provided on policies and procedures for consideration of statewide and local amendments to the state building codes.
5(b). Public Testimony on IBC [WSR 19-16-158 August 7, 2019]	None provided.
5(c). Public Testimony on IFC [WSR 19-16-157 August 7, 2019]	None provided.
5(d). Public Testimony on WSEC-R	<p><b><u>William Lamont Worden:</u></b> I want to thank the council and the staff and everyone from the Westside of the state for making the effort and the trip to come to our side state and let our voices be heard. Thank you very much. I am not going to read remarks I am just going to speak from my heart. My main concern is, in my opinion and in the opinion of thousands of scientists our planet is heating up excessively and it is getting really serious. We've reached the stage where it is being considered a crisis and an emergency. The IBBC from United Nations has given us about eleven more years before we may hit a point of no return. We need to take action now and it has to be serious action. Not only does that statement exist as fact but the other thing that more and more people are coming to realize is that human beings are the main cause of that global warming that is causing this climate crisis. The main contributors to that is carbon dioxide, it's a greenhouse gas. So, I want to encourage the council to please do your part in your arena of influence. Stop carbon dioxide, emissions into the atmosphere. You can do that by changing the code to make the emissions of carbon the standards for building codes rather than simply energy. Please consider carbon when new buildings are under construction and please consider the impacts on the entire planet not just the state of Washington and our individual houses. We are in this together as a human species and we need to start attacking the release of carbon and accounting for it. Keep track of it. Measure it. The building code carbon emissions standards would be a good move in that direction. Also I worked very hard last year to get I-1633 passed. It failed, but we were successful in the last legislative session to give senate bill 5116 passed. Which is really going to, I understand, revolutionize energy in our state. I think that it is called CETA, the clean energy transformation act or something like that. I've heard that it is going to be very difficult to impact all of the changes that law is now demanding upon us unless we take some serious steps forward in making carbon emissions a part of that. Or, making carbon emissions a part of the building code to help us implement 5116. I just beg you from my heart on behalf of my grandchildren to consider the future, and consider what our planet is undergoing with the Amazon burning and the earth that keeps getting worse and the wildfires devastating us and the flooding, ice melting and on and on and on. So in Spokane and maybe you didn't realize from the west side, in the last two years has had some of the worst... <i>Staff noted a technical difficulty</i></p>

*with the microphone.* Spokane's been known in the last couple of years from our wildfires in British Columbia and Central Washington have the worst air quality in the entire nation. That is hurtful to me and the people I love that live here and this great place I consider home. Please look out for us, thank you.

**Brian Parker:** I want to follow-up. I am speaking in support of adoption of section R-405.3 performance based compliance, sight energy use to be replaced with carbon emissions as a measuring metric for compliance. I think that was the name of it. I am really happy to see everybody here. I understand all the different interests we have to balance to government coming in and changing building standards as it impacts a lot of people. I just think that feeding carbon measurements into building new houses is a very appropriate thing to do if you look at what the legislature direction it's moving in. The clean energy transformation act was mentioned and it is a huge change that is going to require getting carbon out of all the electrical production of the state. I think that this is a small additional action and we need to kind of move the construction industry towards building higher efficiency and new technology homes. I think that this is a good step. I know that we have made, somehow it turned out that, it saddens me that science and this issue of global warming ends up being a big political issue. I guess I am a liberal. I don't understand that, but it is something that we will have to cope with. It is having the effects on so many people. I belong to a group around the community and one of the parents of a group member lost their house in Paradise, where the big fire came down and took out about thirty thousand houses in California. We had this terrible smoke problem here. If you are not local, this is exactly the time of year where they're telling you to stay inside the last two years. It is really an issue. It is British Columbia drying out causing fires and we're getting the smoke and the whole thing. So it's a real thing. I am sorry that it is politicized. I hope that you guys can do the right thing. Thank you for your service. You've got a job that nobody likes at the end of the day. It is a tough job. Thank you so much.

**Elizabeth Williams:** I have to say that this is the first time in my life that I have taken vacation time from work to come to something like this instead of doing some type of fun vacation. I just feel that it is so vitally important that we have you adopt this new proposed code amendments as they're written with special attention to making carbon emissions the main measure of the code compliance. With new homes and buildings being built this can be a cost efficient way of doing it so that we decrease the use of gas furnaces and appliances in new homes and head toward electric heat pumps. There are builders that are already doing this, but certainly not enough of them. Having it as part of the code would ensure that for new homes. They are going to last a long time. So this could affect the carbon emissions for that for years and years to come. I want to thank you for coming here to Spokane and hearing us. Sometimes here in Spokane, we feel like things happen mainly on the west side so we really appreciate you taking the time and effort to come hear us here. Thank you so much.

**Phillip Linwick:** I am a retired physical therapist. I worked with repertory compromised patients. My concern is that carbon emissions ultimately result in adverse effects on the earth quality resulting in adverse public health consequences. I urge the adoption of the code revisions in their entirety as building and housing is a significant contributor to carbon emissions. I echo the comments of the previous testifiers. The evidence of the smoke season in Spokane in the last two seasons is pretty dramatic evidence of what we need to do in influencing carbon emissions. I want to thank the board for the opportunity to testify and for coming to Eastern Washington. Thank you for the opportunity to testify.

**Carolyn Logue:** Specifically talking to items 22 and 25 regarding gas fireplace efficiency and may continue as pilot lights. We have submitted information through the TAG process that you've probably seen but our organization is incredibly concerned about this proposal because we feel it is being done incorrectly. This is a proposal with a limit on the gas fireplace efficiencies. Not only will have huge economic impacts to dealers, distributors and manufacturers of these appliances in Washington State that are not included in your economic impact analysis. It is also being done in a way that will impact the manufacturer of these appliances. This isn't a building code issue. What we are asking for is that this not be done as part of the building code. That the building code council say this should be done in an appliance efficiency statute and regulation which would allow stakeholders from the industry to come up with the best solutions and the best ways to come up with going about doing this gas fireplace efficiency standard. We ask this specifically because there are standards such of this happening in other parts of the world. In Canada, British Columbia has some standards on this. California is working on it and our Canada has done it as well. They have all done it under a regulatory appliance efficiency standard, not through building code. This gives the building code the opportunity to reference a standard once it is developed, rather than trying to develop the standard for an industry. It also is much cleaner in terms of compliance and communication with manufacturers who have manufactured these products. It also makes sure that our customers in Washington State aren't limited. Right now what would happen is that you would have very specific standards that are very aggressive and would eliminate significant products from the market place that would happen in Washington State. So I don't think that what is going to happen is that manufacturers are going to make something just for Washington State. What we are going to have is customers' online, crossing the border, etc. Going over and getting these appliances from elsewhere and then trying to install them in their homes. Probably on their own without the help of a person that actually knows what they are doing. Which is not good for making sure that these things are safe, efficient and working properly in the home. So we would ask, and I can't emphasize it enough. This is not something that should be in the building code council. We do have appliance efficiency standards in statute. We are very willing to sit down with the proponents and work on this. We have been talking them. I think we can find some areas of

agreement but items 22 and 25 are probably something that you guys should be dealing with. We would like to see people that are experts in the industry get to deal with it. Thank you.

*Diane Glenn asked a question: Do you find a challenge with both the efficiency and the continuous pilot light?*

**Carolyn Logue:** The efficiency is the primary. The continuous pilot light I think we've kind of seen where things are going but we've had some discussions and we'd prefer to have some really good discussions about how that works. Particularly in light of what's happened in Canada and what's being discussed in California. The rating that is right now you do not separate a heater rated appliance from a decorated appliance. Which have two very different uses in all alone and right now this proposal has a 65% efficiency rating on all appliances. Whereas, Canada, California and B.C. have all exempted decorative from having a set minimum efficiency rating because of the way the decorative appliances are used in the home. We will have more people up here to talk with you about that. Yes, we have concerns with both. More on the appliance efficiency side but we think that both of them go together but that is how they have been dealt with in the other areas.

**Judy Fitzpatrick:** I'd like to ask the council to adopt the proposed code amendment for performance base compliance reducing carbon emissions as the main compliance measure. The most recent IPPC report says that we don't have a lot of carbon budget left or a lot of time left if we are going to avoid the worst consequences of climate change that we are already beginning to see on this planet. Adopting this amendment is really important because buildings and homes are the second largest emitters of carbon in the state of Washington and of course they last for a long time. Adopting this measure could have a very large impact and also help reach the targets of the new clean energy transformation act. Also, it is affordable. Homes in buildings that are carbon efficient are already being built at comparable costs to other buildings and homes. Just to conclude the reason that I came out is that I am a new grandma. When I pay attention to what is going on this planet today I just sort of tremble about what my grandson's life could potentially be like. It just seems like, as a society we need to implement solutions as quickly as we can and this is a solution that could have large impacts and seems like a very common sense thing to do. Thank you very much for coming over to the west side to hear our testimony today.

**John Crouch:** I work for the National Hearth, Patio and Barbeque Association. We are the North American Trade Association for all things hearth meaning wood burning. We've been in front of the council years ago around those issues and gas burning as well as pellet and other things such as that. I want to speak to item 22 and 25 and I'm here in support of our local people. You heard our local advocate Carolyn Logue speak. You will hear a number of industry members from the state speak to this as well. We have worked with many jurisdictions around North America, British Columbia, Natural Resources Canada. They call it intercan. When folks say intercan that is what we mean, that

is the DOE of Canada. Currently we are in discussions in a rule making with the State of California. In none of those jurisdictions, is anyone talking about putting appliance efficiency in the building code they are all doing rule making. As Carolyn has pointed out, that's where this belongs. I don't have to tell you that residential buildings are increasingly complex. As they struggle to be inspected correctly, make sure that they are built correctly, that we don't have moisture where we are not supposed to have moisture. The local inspector is under a lot of pressure. The idea that he or she would also have to keep track of an appliance efficiency standard, it just doesn't make sense. In this state right now, there is a standard for pool pumps or pool heaters excuse me. The inspector doesn't have to keep track of that. They shouldn't have to keep track of that. They have a zillion other things to keep track of. That was done through a rule making and gas fireplace efficiency should be done through a rule making as well. The issue is actually more complex than it first appears. Of course, a lot of issues that come before the council are that way aren't they? All fireplaces are astatic. If they are not astatic then no one wants them. Some, make heat. These principally are sold in the aftermarket. I say fireplace generically here, I mean hearth products. Some are sold as inserts. Some are sold as freestanding. Those of course for heaters. That is a discussion but that is different from the kind of fireplace that many folks want in their new energy efficient home. All of that is exactly though why it belongs in an appliance efficiency discussion and not in front of the building code council enforced by a local inspector that's got 17 tickets to deal with today. Frankly more important parts of the structure than the efficiency of the fireplace. So we would urge you to reject this recommendation from the TAG and encourage the Department of Commerce to take this up in the efficiency standard. Thank you.

*Doug Orth asked: If there is an efficiency standard that is through the rulemaking as you suggest who enforces that?*

**John Crouch:** Well, in your state I would assume that all the efficiency standards through rulemaking are enforced through the Department of Commerce. I couldn't speak to that because I don't know the answer to that.

*Doug Orth stated: Commerce is not going to come out to a new home build and look at that fireplace or pool heater.*

**John Crouch:** That is true they're not. The inspector shouldn't have to worry about whether it is 65, 62, 73, 84%. That is just not the inspector's job. The inspector should be looking at, we believe, whether or not it meets the Washington State standard. Of course if Washington State, as we hope will be consistent with California. Will be consistent with Natural Resources Canada. Will be consistent with British Columbia. It won't be a problem with the local inspector. It is only going to be an issue for the local inspector if Washington State, through a building code process that is not an efficiency process, a rulemaking process adopts something different. Then the inspector is going to have to keep track of it because it will be separate from these other jurisdictions.

*Andrew Klein asked: Is there a national standard?*

**John Crouch:** There is not a national standard in the US right now. There is a national standard right now in Canada. We expect if California matches the Canadian standard which is obviously is our hope, the manufacturers and certainly something that they are strongly considering. Then that becomes a de-facto North American standard when you've got all of Canada and California we've got a big chunk of the North American market.

**Gregg Achman:** I am with Hearth and Home Technologies. We are the largest manufacturer of gas, wood pellet fireplaces, stoves and inserts. You probably better know us through our brands of Heatilator Heat and Globe, Majestic, Quadra Fire, Carmon, Vermont Castings are our brands. I'm specifically going after item number 22 the gas fireplaces efficiency. I would like to mimic previous comments that it's not the appropriate vehicle for setting these sorts of regulations. I can't support it at this point in time. It really should go through some sort of state efficiency regulatory action because this involves basically how all manufacturers are going to manufacture and sell their products in the State of Washington. Another point previously mentioned; it does not draw a distinction between what is a heater ANCI 2150 is a heater C2188 standard pursuant to what is considered decorative as Z2150 standard by ANCI. As you have just recently heard, Canada has adopted a national standard for the heaters versus decorative. We are currently in the process of working with California Energy Commission on similar regulation for their energy code. Also, I will point out, one of the main things that I can't stress enough is that these are first and foremost decorative in what their nature is. These are focal points in rooms. People spend extra money because they want to have a focal point for their room. This is a gas focal point in the room. They're certainly other options if their only need out of this product was heat. People like to gather around a fireplace. It is really important to realize that this product shouldn't be put in the same vein and consideration that as a straight forward regulatory utilitarian heater because it's got a lot more things that it is doing other than just providing heat to the room. At this point and time the minimum proposal for the heaters and fireplaces for our company would be many of millions of dollars annually for Washington State and would affect more than 100 dealers and distributors that we have in the state. Basically that would compromise 50% of the sales of our products into this state which goes directly to your dealers and distributors and consumers in this state. There is a lot of impact the way this code is currently written today at 65% for everything. At this point I guess that we would urge that this gets kicked up to a different committee, commerce committee wherever that proper energy code regulation should be addressed. Thanks.

*Doug Orth asked: So is there a clearly established difference in the manufacturing between the decorative versus those primary used as heat?*

**Gregg Achman:** The look can be very different. Probably the really biggest distinction is going to be a unit that is listed as a heater can use

a thermostat to operate. Probably one of the other things that I forgot to mention is primarily these products are attended. Meaning, you turn the fireplace on when you are in the room. When you are in your family room, you're watching TV, playing Monopoly, whatever it is that you are doing that is when the fire place is turned on. It is a localized heater for when you are there in that room and want comfort versus a whole house system potentially. The biggest test difference here from the test standard would be the allowance of a thermostat and the testing to allow for a product to run independent if somebody is there attending it. Localized the intent is all of these products to look like a fireplace. Just the amount of heat coming directly out of it into the room is going to vary. Unfortunately with 65 being set for both of them you are limiting the consumer's choice what type of product that they would like. They may not want a lot of heat out of it. They may now choose not to do this product which hurts business locally because they just don't want something that hot.

*Kjell Anderson asked: What is the efficiency that Canada has?*

**Gregg Achman:** Canada is going into effect 2020.

*Kjell Anderson asked: And what is the efficiency?*

**Gregg Achman:** They have set a minimum efficiency of 50%. We don't use AFUE in our efficiencies. It's called a fireplace efficiency rating but it is basically the AFUE protocol with a couple of modifications based on operating characteristics. A fireplace isn't going to cycle in, I don't remember what the standard is for FUE for furnaces and room heaters. Too many of these things are cycling in ten minute intervals. Well that is not the way that a fireplace is going to operate. It is still an annualized efficiency but it doesn't use the same terminology. It purposely didn't want to be lumped in with the three other utilitarian heating device.

*Micah Chappell asked: Does Canadian efficiency standards apply to both the decorative and the heating appliances?*

**Gregg Achman:** So they are exempting the decorative at this point and time and they are only setting a minimum efficiency of 50% for heaters.

*Doug Orth asked: Again, how do they differentiate between the two? I have two of your products in my house by the way. One I love and the other one well, it is ok. The one is clearly a decorative fireplace in the middle of my living room, well it doesn't have a wireless thermostat it's got a little remote thermostat that I can plug into. It's like you say, it's not something you want to use for when you're not in the room. Even though it is a decorative appliance it would seem thermostatically controlled through that hand held remote.*

**Gregg Achman:** As there is more distinction between heaters and decorative, our manufacturer's goal is that with a decorative product you can't get a remote with thermostat function. There will be some segregation.

*Doug Orth asked: The Canadian regulations are coming online. Who is the enforcement authority in that scenario?*

**Gregg Achman:** It is really just the same as what DOE or state. Your state energy code probably has a minimum efficiency for furnaces and what not and in Canada by providence it is going to fall on whatever the national energy code requirement is. I don't know if I have a full clarity of who's going to supervise it. We submit our data to the NRCAN, to their database and it just simply calls out are you a heater and what standard; what is your efficiency? Or are you decorative? What standard? What efficiency? There is a national database that you can access by every manufacturer. It will actually tell you whether it is a heater or a decorative and then give you its efficiency.

*Todd Beyreuther asked: If it meets the definition of decorative, what prevents it from having similar output and perform as a heating unit?*

**Gregg Achman:** That is the hard part. You're burning a fuel. Even if it is decorative, if the intent of the product is not to put a lot of heat into the room; it is pretty hard not to put any heat into the room. A decorative product can still put a fair amount of heat into the room. Just not as much as something that is really designed to really push a lot of heat into the room. The heaters have a lot more radiant affect coming through the glass than the decorative. It is one of the things you would have to feel it. You can walk up to one of them and you're like wow my pant legs feel like they are on fire and the other one is like I can stand here a little bit longer.

*Doug Orth stated: That is really my issue with the one that is decorative is it puts out to much heat.*

**Gregg Achman:** I was there for the original. Our company and my original lawyer. We patented the original gas fireplace. One year after we had it on the market the first question came back; love it. It wasn't decorative because there wasn't heater standard, can you do something so it doesn't put out as much heat. People like them because they are efficient for what they are doing. They are not using room air for combustibile "inaudible", everything has gone direct vent at this point in time. While it may not be as high as a condensing furnace it does provide what people are looking for in an efficient manner. Whether it is heaters or decorative but it really depends on what the consumer is looking for of that product. We are limiting consumer choice if we set a minimum 65% for decorative

*Tracey Harvey asked: Do you have an idea of what the efficiency average is for the decorative versus those intended to heat?*

**Gregg Achman:** I have never run the numbers for what that is. I mean there are some products out there that are probably 25% efficient. You see a lot of those in commercial applications. If you are in a lobby or someplace like some of these restaurants. If you are eating dinner right there you don't want a fireplace pounding heat on you but you do want the ambience that it provides. A lot of those are going into more commercial applications where they are not looking for the heat they are looking for the aesthetics. I would say the majority of the products if I was to spitball and average I would say that from a heater perspective, I would say that the average is probably in the 60ish, upper 50's. We

can make them more efficient it's just that the pull isn't there from the consumer to do that. They just don't want them that hot.

**Mark Russell:** Thank you very much for the opportunity to speak today. I would be one of those people on the front line negatively affected by this. I sell these types of items to retail dealers. In Eastern Washington I have at least 40 fireplace and HVAC contractors that purchase these products from me. I also do a lot of business in the state of Montana, Wyoming, Idaho, so I travel a lot. This proposal 22 would negatively impact the consumer's choice on what they want. As the prior speaker said, not everybody wants heat out of these products. They're for visual. They're for ambiance and that is their function. When we take away the choices that the consumers have, I believe that it would negatively impact those 40 dealers and their families. Not to mention, the manufacturing that is done in Washington State in this industry. There is a company called Travis Industries that is based in Spokane. They produce a lot of materials in Mukilteo, another manufacturing "inaudible". They build product out of Auburn Washington. These would be negatively impacted by those manufacturing jobs as well. I oppose your proposal. Thank you very much.

**Blake Dickson:** I am opposed of section 22 of this proposal. I am a third generation business owner of a company called Tristate Distributors. We've been operating as a family in Spokane Washington for over 50 years. Over those 50 years we have grown from my grandpa and my dad's best friend to 75 employees. The bulk of those employees do work in Washington State. We do cover throughout the west coast. We are a leader in the distribution industry for fireplaces again based here in Spokane. We operate in two warehouses that the family owns in Washington State. One in Spokane and one in Kent Washington. I'll rollback my points here. We have 75 employees that do work in Washington State. We operate two warehouses, we own the buildings ourselves we are paying taxes on those. We own five warehouses throughout the west coast. The bulk of those warehouses are serviced through our customer service center in Spokane. We do have employees outside of the state but we do operate business outside of that. Decorative fireplaces as you guys have defined are a major part of our business. I would oppose the definition of what is a decorative fireplace here as well but I would defer to our HVAC leaders with that. On re-service in Washington alone I would estimate at least small businesses that range from one employee to the most 25 or 30 these are small businesses, a small mom and pop industry. Losing one or two or three decorative fireplace sales for a lot of these, a lot of my customers would be detrimental to their business. We also believe that if this does pass it will limit consumer choice but also will force consumers out of state especially here around Spokane. We are not too far away from the Idaho border to buy things aftermarket that the building inspector might not see or via the internet. Our industry is not a huge internet industry but it is growing and if it gets forced in that then it can be. Other than that I will defer other comments to our industry leaders.

**Jim Ugle:** I am based in Washington and represent five states in the NW. I am opposed to 22 as well. The way that it is written today would impact new construction unbelievably. I would estimate that 70% of fireplaces going in new homes today would not be able to be installed in new homes tomorrow which would just have a huge impact on many people, jobs, and businesses. I think my people that spoke before me I believe what they have said, it is more of an energy code but the way that it is written today would limit consumer's choices. Cost of construction would go up as well. Like I said about 70% of new homes today would not qualify after this code, for the fireplaces that they receive today. That impact alone on jobs and people is huge. That is all I have.

**David Camp:** Hello and thank you for coming to Spokane. We appreciate you taking the trouble. I am David Camp. I am with 350 Spokane and I am concerned about climate. We recommend that you pass the proposed code as written. We are very concerned about carbon emissions in particular and encourage you to use carbon emissions metrics for as many code sections as you can. Section R405.3 is of particular interest. This would encourage electrification of heating and cooling, we like that. Buildings are the largest emitter's of the greenhouse gases in our state. So it is a very important thing to address in your realm of authority. Decisions that you make here will last decades. These have long effects and we're in a mist of a crisis. We have got to do as much as possible to get all construction to abandon gas as a primary need. We encourage you to do everything that you can to eliminate all gas appliances from all new construction. That includes fireplaces, I understand but a few jobs locally versus millions of lives worldwide is a no brainer. We have to do something about this. The latest reports coming from the IPC suggest that the clean energy transformation act is very insufficient. It is too weak. We are talking about a report last October that recommends that we abandon the goal of limiting warming of 2 degrees Celsius and focus on 1.5 degrees. This according to the intergovernmental panel on climate change would require a carbon price upward of \$135 a ton. Perhaps as high as \$5,500 a ton. This is an astronomical figure. The state is currently planning to use \$73 a ton in 20/30 dollars, as its metric for the social price of carbon. That's a very, very low figure compared to what we will be facing really soon in all policy decisions. So for the benefit of my children and yours, please adopt the code as written and pay particular attention to carbon issues. Thank you.

**Larry Andrews:** First question is, I thought that we were going to take this section by section. I thought that this would be the residential code but I am hearing discussions that are affecting me bleeding over from the building code to the residential code. I have about six different items here to talk about. I would like to talk about, at least the carbon issue right now that is before the board because I kind of missed that. In 1945 three B-17's crashed over Greenland. 1989, it was decided to go find these B-17's. When they found them they were under a 100 feet of ice that sit there today. Reality, we still colder than what we were in 1945. You can go home and on the internet and find all this. One of the

problems that we have in this state of our policies of national forestry about the burning that is going on. When I grew up in the 70's we had a guy on every mountain. He was looking for any fire that came up was spotted and immediately dispatch was sent to him. By the time the satellite picks it up, its one big hell fire. Ok. So we have stepped back if we really want to prevent fires. The other thing that we used to do in the 70's is we used to trim the trees. Get the brush from underneath them. Control the fires so if the fires spread it didn't get to the top of the trees. That's all gone away. We don't have the access roads that we used to have. What we have done is a bad a bad policy has got us to where we are with all of these fires now. We can't get to where we need to be in a timely matter anymore because the roads haven't been maintained. A lot of these wild fires could have been squashed out. If we'd been really controlling fire, don't you think that we would get the national guard involved with some B-52's? Have them geared up for some low bombing passes and get these fires put out. If we really wanted to put the fires out, we can do it. We don't want to spend the money or the assets to do it. So we just let them burn and burn out. That's for them. For the cost to go completely without gas, you guys don't have a clue what you're dealing with here. Natural gas burnt, is the most efficient heating to do right now and for a long time to come. We don't have the electrical infrastructure to provide all of this power to everything. All of the power that is going to be generated in the near future is going to be brought on with gas turbines which is 50% efficient. So now you just threw 50% more carbon in the air than what you did before. Then you've got your wind mills that are out there. Do you know how much utility is getting paid to put these wind mills up per kilowatt? It is in the high 40 cent category. So take your bill, your electric bill right and multiply it by four and now you will have your true bill. We are all subsidizing this power right now. It is extremely expensive. That doesn't count for all the costs to maintain it. To put it up. These cost figures are computed and the carbon that it takes to drive out to these facilities, go out and do all of this work. These are all true costs that need to be put into the carbon footprint. Then finally, my company has patents and we've been holding off. We are getting some investors together that with our patents we are not worried about heat in this earth, we are worried about how far we are able to cool it down. We've got a patent. I can get you the patent number. It is in the US patent office. Every building will have one of these machines in the future. All of the heat that you expel out will now be renewable energy. We can put the same machine in the ocean and we can draw the heat out of the ocean and make heat out of the ocean now. The problem is to be cost effective. Our projected cost per kilowatt is 25 cents to do this. We pay about 9-10 cents a kilowatt. So is it cost effective right now, no. If you want to pay me what the utilities are we can draw this earth down to any temperature you want at any time you want. The third thing is why are we so concerned around Brazil burning everything up? If we are so concerned then why don't we go pay these people so they don't pay for that? I mean why can't every state kick in some money and pay these people so that they can have a decent living like we want to have and keep their forests. We are not taking smart approaches. What we have

is a political approach that is a political agenda to try and get people elected. Global warming could be happening but also there is the capability now to pull the earth temperature down to whatever we want. It is not only my patent. There are other patents that are out there now too ready to hit.

*Eric Vander Mey asked: Did you have any specific testimony on the energy code because we are hearing the energy code right now?*

**Larry Andrews:** Right. So we still have the IRC right?

*Eric Vander Mey stated: This is just Washington State energy code residential.*

**Larry Andrews:** So we have got section 22, 25, 33 & 37. I would like to talk about the gas fireplaces then since we are talking about that. This here, I am going to stand up so that you can see. *(Picture of a fireplace was shown)* This is a picture of a decorative fireplace in Spokane just recently installed. This is in the bedroom and this is another decorative fireplace that was installed in the living room. These fireplaces put out close to 150,000 btu's to put the flame out all the way across there. This house has 95% gas fire furnaces. They don't want the heat. They want the aesthetics of the fireplace. This man has worked all his life to build this house and get what he wanted. This proposal that you have would remove that from this man's wish. Ok. It's not good. Ok. A lot of fireplaces are built for strictly aesthetic purposes. Ok. Now, you want to make this 65% efficient I'll tell you what is going to happen to the energy code. We are going to put twenty tons of air conditioning in to make it happen. Now, look at the cost of that to the environment. First we are going to build the carbon to put the fireplace in and then I'm going to put in a twenty ton roof top unit on it to keep it under control. Is that what we really want? Ok. If you go up north into BC and I hope many of you do. Up to Calgary on the way up there and you look at night when you drive up. What do you see? You see flames everywhere out of the ground. It is just all over the place. They light them off because it is bubbling off out of the ground. It is all just bubbling off out of the ground. Make use of what God put there for us. Ok. But let us design systems that is going to keep the CO2's under control and keep the temperature down where it should be and we can do that. To eliminate it and not have the electrical grid work to do what we need to do is wrong. Let me go on to the next one. I have the mechanical ability and the knowledge of what needs to be said here that you guys don't understand. The next one is about putting in continuous burning pilots. Let's talk about that from an engineering stand point. When we don't have a pilot on a gas meter set and it gets hot out, the gas comes in at about 50 degrees. It goes into a pipe that warms it up to about 80-90 degrees sometimes depending if the house has air conditioning or not. Guess what happens to the relief regulator? It starts relieving. Because in residential equipment, this is really critical in residential equipment. Residential equipment can only handle 14 inches of water column. The supply or supplier, 7 inches. That gives us 7 inches of water column pressure that we have to work with. We are having a nightmare of regulators burping off. So the regulators are

burping off, then what happens? Well, you know our piping systems aren't perfectly just clean on the inside and we get some particulates underneath the seat. I meant to bring it but I got stuck. I got a gas valve that went through one of these. The gas valve stuck open. Did not shut off. The furnace turned cherry red. Luckily the consumer came down and felt the heat otherwise the whole place would have burned down. It all was because there was not a pilot appliance on the regulator. If we would have had an appliance on the pilot regulator we wouldn't have lost the gas valve. There is a move in Southern California to require one gas appliance on a meter set to be piloted to prevent this from happening. We can't change the physics. We sure can keep one gas appliance piloted whether it is a gas fireplace, a water heater or another appliance. We need to do this for the safety of the gas system and you guys are trying to stop this. This is wrong. This isn't wrong because we can't change it and then we are going to create another problems. We are going to have houses burn down. We are going to have people die because you made this change. We have got electric water heaters that you want to put foam under it and you want to tell me that you want to put a foam that doesn't compress. Well the wording is wrong. All foam compresses. I don't care what poundage you have. If you want to do something that is good for the code you need to right the wording to say "pressure rating of foam shall not be greater than the weight that is put on it." Because it is all going to compress. You need to change the wording because the wording is not correct. When it is not correct we are going to have problems. The final thing is R403.10. That was the heaters and the continuous pilot lights off the heaters. I read through that and some of it seems ok, but don't say fan heater. Say blower heater. Most all furnaces that have most pilots now have blowers. There are a lot of furnaces that have fans that still have pilots. So when we go into a retrofit situation and we need to put a wall heater or a wall furnace in that doesn't have power there what are we going to do? Now we have the electrical code involved in an existing building that going to have to have an arch fault breaker put in to do this. You just dropped a thousand dollars here. Most likely we are going to need a pilot on this system anyway. Please. Please. Don't go with this piloted thing, removing the pilots. It's wrong. At least have something in the code that you can have one piloted appliance residentially. Thank you.

**Bill Wing:** Thank you very much for having me, I appreciate being here. I have been in the fireplace business for 44 years. I have been in business for myself for 33 years I think now. I am here representing my family, my employees and the hearth products business. I am opposed to obviously number 22, the standing pilot. I kind of want to tell you from an old salesman, sales rep, I've been doing this a long time. My experience just with general fireplaces, I've sold thousands and thousands of them. I was very fortunate to sell one of the first fireplaces that came out in the market place. A standing pilot, believe me is a consumers choice. Once you talk to a consumer because there are very few call backs. You only have to clean the glass once in a while. Very little service. Then, when the electronic ignitions came out, which we sell today, the call backs start. So now you have to have a tech. You

have to buy a car. The customer may live ten minutes away or an hour away but the amount of call backs is tremendous. It is just tremendous. So in the end the consumer actually loses. It's not a friendly system to us at this point. It is better for the consumer to get a standing pilot system because the long term is just going to be that much happier and you don't have to pay for a service guy to come out. So that is about all I have to say. If anyone has any questions I'll be glad to answer them.

**Tonya Beavers:** We have provided technical assistance, technical support for the residential energy code in Washington State for many, many years. We offer trainings and answer more than 2500 inquiries via phone and email each year in our technical support capacity. We work with jurisdictions, builders, designers, other contractors and owner builders who call us and need assistance with questions on the energy code and how to comply with the energy code. We've been involved in the whole process of developing the new energy code. Including the technical advisory groups, in that process. We feel that we are familiar with the proposal. We feel that the new code is technically sound and it meets our states goals of moving towards more energy efficiency in the state. Also having been involved in many transitions to new energy codes throughout the years. We are very aware that during those transitions to the new energy code there is a huge need for training, technical support and other resources that help to facilitate that change. We want to let the council know that the Washington State Energy Program is working with the new proposals and once everything is set for the 2018 code, we will be ready and available to provide training and technical assistance to people across the state of Washington and to help facilitate the 2018 code and make it a new transition.

**Gary Dickson:** You've heard from a partner of mine, you've heard from an employee of mine. The rest of a lot of people in this industry are people that are my competitors, my customers and all of us belong to two organizations; Hearth and Products Association, Hearth and Barbeque Association, both the national chapter which you heard from the NW and that group has been the most responsible group in a lot of issues of any group that I have ever been around in my forty-five years in business. I oppose 22 because it is not the right way to go about this. If it comes in the hands and is in coordination with these groups they've been responsible with wood pellet and gas. It is a great organization. We've had a lot of things that have come up and changed emissions on the wood side. I just say that it is a good group that you are working with and it is a good group of people. I won't take any more of your time. I just want to support the hundreds of families that are getting paid in this industry right now and that is all I had to say.

*Doug Orth stated: I would just like to make a point that the families that are supported by this industry are no small part of the equation and I would like to acknowledge that. Thank you.*

**Maren Longhurst:** We strongly support the full packet of residential energy code amendments currently before the council. I am an architect working on projects in Washington and around the Pacific NW. We are regional leaders in high performance architecture and many of our

projects are single family homes. We are signatories to the American Institute of Architects 2030 commitment which calls for all new buildings developments and major renovations to be carbon neutral by 2030. Our firm was able to exceed the goal for 2018 in every one of the projects in our office during the year achieving an 85% average energy reduction per square foot over a regional base line. We strongly urge you to adopt the full package of proposed changes because they keep us on a strong path towards net zero ready construction. It includes changes that acknowledge the current use of fossil fuels in homes and provides strategic ways to be in addressing those uses. More efficient homes are less expensive to operate and maintain, more durable and resilient and more comfortable to live in. In particular I would like to address support for the passive house alternative compliance. This proposal adds passive house certification for an alternative performance based compliance package for homes. Which provides for continued flexibility in meeting energy code requirements. In our office we have seven projects that are PHC, pre-certified. With another dozen that are built or under construction that implement passive house principals but aren't seeking certification. I've seen over the years that certification programs like these have changed the landscape and the construction world. High performance building components and systems like windows, insulation and HVAC equipment are more readily available and more likely to be available and more likely to be available in the US then they were a few years ago. Builders and developers are more likely to stay ahead of changes to the energy code as a competitive advantage to the market. Consumers are recognizing that higher performance homes hold more value and a better quality of life. Thank you.

**Troy Olsen:** Thank you for giving me a voice here this morning. I represent Bolt and Steel USA. We are a manufacturer of gas fireplaces, wood fireplaces, and pellet appliances for Washington, Oregon and Alaska. I currently represent over 50 retailers, over 600 HVAC companies and as well as distribution companies with revenues of about 5 million dollars in this area. The proposals on sections 22 and 25 I am opposed to simply because as you heard earlier of 70% I would go north of 80% of the fireplaces currently installed in new construction today would be affected by this ruling, by the efficiency billing. I support, the ruling or the creation of the ruling, not at the council level but at a regulatory level. The hearth industry in the 24 years that I've been with it has demonstrated continuously year over year working with the Department of Energy, the EPA to create safe and responsible appliances for use in homes today. Both in new construction and as a retrofit product. The other thing that I would like to speak about is in 2016 there was a research study published on the amenities of homes. On the amenities in homes and the purchase intent with those amenities. The research study was performed by a company called Hoth and York who is a renowned market research firm. 91% of the consumers responded that they wanted fireplaces in their homes. 91% of the people that we are talking about. We are talking about eliminating 80% of those. When you take amenities away from homes you take desirability away from neighborhoods. You stop growth. That is one of

my fears is that this proposal would have. Also in proposal 25 in regards to the standing pilot issue. One of the things that doesn't address and anybody who is on the street every day and gets called out to homes, it doesn't address the geography and how this type of technology effects works in Spokane versus work in Moses Lake versus out on the Washington coast. They all perform differently because we are talking about a utilitarian function that a pilot light has in creating circulation through a system. On a Saturday or a Sunday when somebody goes to use an appliance and the draft pressure from a deep canyon or a deep valley won't allow that appliance to turn on because it is only electronic ignition. Additional cost to the consumer would have to be levied so that we can create a stop gap between that. We have been dealing with this now for over ten years. I would support seeing this council eliminate those two specific line items and take that to a different regulatory agency.

**Chuck Murray:** Simple statement, the State Energy Office supports the content of the CR102. The code changes provided there. We think it will help the council achieve the legislative goals to reduce carbon and provide energy savings. I did not prepare any targeted comments on anything other than that but I do want to make myself available for questions.

*Doug Orth asked: What's your thoughts on; you've heard all the testimony on gas fireplaces and a menu for providing revised efficiency standards to that. Do you have any thoughts on that?*

**Chuck Murray:** I think that we have adopted efficiency standards both through the building code and through appliance standards. I think both are appropriate.

*Doug Orth asked: In the building code?*

**Chuck Murray:** Yes, we have adopted in building code as well as state standard processes.

*Doug Orth asked: Do you have any comments on the heat producing versus decorative appliances?*

**Chuck Murray:** The first 4 or 5 folks that came up and spoke to you they talked about an existential threat that carbon emissions have. Then we have folks that are concerned about their jobs. Unfortunately you are in a position where you are going to have to thread the needle on that one. I think that the fireplace industry should prepare themselves for a time when less gas will be used in those appliances. We've given them several pathways throughout the context of the walk. There are two ways that you can reduce the heat outtake in the appliances into the space. One is that you can reject it to atmosphere through the vent or you could just make the flame smaller. Now, I know those are challenging things for the industry but I think that they need to begin preparing themselves for that. Also I did speak with the representative for the hearth industry and I asked them to bring us an alternate proposal. I would still like to see that.

*Doug Orth asked: Where you the author of the original proposal?*

**Chuck Murray:** No.

**Louis Starr:** I will try and keep my comments to 45 minutes. I just wanted to explain a little bit of what NEA does. NEA does both gas efficiency and electric efficiency in the codes and while we didn't actually develop the proposal, our consultant, Nick O'Neill with the MP350 did. Nick is actually on the phone. I know you all had a lot of technical questions and he can go into greater details. If you would give Nick some time at the end of the time. I think that he would make some comments I think that would be helpful. I wanted to say in the course of our work, one of the things I potentially, have been doing a lot of outreach and encouraging Nick. Part of the opposite person that has shown up here is that we've done that outreach to talk to them such as those things so that they're aware of those. Some of the heart, gas and patio people as well. One of the things that we're looking for is that, I come from the industry before NEA as doing codes and standards. I understand that we need a reasonable compromise and I'm willing to figure out what that compromise is. What I think that you've heard today is that there are some decorative appliances that may be 65% efficiency is not a great target for them and I am willing to listen to that. We've had Nick go through and looked at a number of product. He's hit over 90 on the decorative side. They go anywhere from 3% to 65 and 75% on some of these things. There is a wide range to that. The question is where do we draw that line that makes sense to keep peoples jobs right? We don't want everyone to go bankrupt. At the same time take a step toward efficiency. To me there is a compromise there but in order for you to compromise I kind of need to say what Chuck had to say. We've done a lot of outreach but they are basically not willing to do any compromise. If you're willing to compromise on what that level is, we're willing to listen. We are willing to make a common sense limit. When you sit at your fireplace and you don't feel any heat from it, it is zero percent efficient. We have found products as little as 3% efficiency. The electric side of things are doing their job in part for efficiency. We just need the gas side to do that but at the same time I am very reasonable and we want something that makes sense for everybody. We don't want to put people out of business. We just want a little more efficiency products. We are willing to make a small step but we need somebody to reach across that way and work with us. I would suggest before our next MVE Committee that if the industry is willing to talk, particularly with Nick O'Neill and talk with him. He's more than willing to do it and I would encourage you to do that. That is what I would like to say about that. In general we've done a lot of work on other things. I certainly want to support all of the work that we've done for efficiency and we are trying to achieve the 2031 goals or legislature requirement in part that is gas as well. We are doing that in other ways by developing the proposal but I think that there is still time as we've mentioned. We are doing a lot of training and support now and outreach for bringing the industry along and turn the construction industry into understanding how to do those things. So with that, I think that is all I have to say and if you would let Nick speak at the end or whatever. Maybe he can provide a little more insight into some of the technical work, all of the outreach and then

some of the technical questions you have about particularly gas and hearths.

*Al French asked: How many other states have adopted these standards?*

**Louis Starr:** What is happening in California is they are going to custom list which means you have to list what the product is. First there is a split between the decorative and the non-decorative ones. The states that has adopted them I think California is working on it. With that being said it is very hard. Typically this would be a federal standard but that is very hard to get through and it is kind of, in the current time that we are that is not a very likely pathway to happen. States have been forced to kind of go with this direction with it. With that being said I think that there is a reasonable level with these products that make sense. I heard the thing about submittals. Every piece of equipment that you have on the job has a submittal. So one for the fireplace that shows the efficiency is not that efficient. I mean, you know if the lowest number is 3%, there you go. There is one number that you could start with. A 3% efficiency protection efficiency on appliances. So all I am saying is what is a reasonable number? I think that the manufacturers know there products. We've done a lot of research on what the product is outside of that. I think that we can come to a reasonable agreement.

*Al French asked: So of all of the fireplaces manufactured in the country, what percentage of that is actually sold in the state of Washington?*

**Louis Starr:** Yeah that is probably going to be more of a Nick question and also that involves a market characterization which means you have to have the sales data for that which is going to be more again an industry thing if they have that data available. Part of it is the reason they would collect that data and if they have the access to that data. I am not sure that they necessarily do. In terms of whether Washington state is the highest of fireplaces, to me I wouldn't think so but maybe you know, it is.

*Andrew Klein asked: What does efficiency mean as far as decorative goes. If you're willing to start at potentially 3% why should it even be in the energy code?*

**Louis Starr:** You have to start somewhere to get something more efficient right? I would suggest 3%.

*Andrew Klein asked: Well what does efficiency mean if it's decorative?*

**Louis Starr:** Well, it means that you're throwing heat away and you could actually be providing that heat to the space.

*Doug Orth asked: Is efficiency the right measure or could it be total BTU's or gas or some other measure.*

**Louis Starr:** I mean to me, the point of the fireplace is to heat even if it is decorative. Have some minimal requirement for efficiency.

*Doug Orth stated: There are electric pro fireplaces that don't give off any heat whatsoever.*

*Eric Vander Mey stated: Most people want those that don't put off heat because they are scared of people touching the glass and getting burned in public places. They are actually very high FM rates to keep the efficiency down. We have lobbies that have 200 CFM but the ventilation needs 2,000 CFM to go in the fireplace.*

*Andrew Klein stated: Yeah, maybe there is a way to look at lumens per BTUM or something to that effect.*

**Louis Starr:** Yes, I mean, one of the things that you just heard is that 91% of homes like a gas fireplace. So basically you're committing to 91% of homes having no regulation on the efficiency of how well that product works inside of it. It depends on what you are trying to accomplish within it. If your trying to get to efficiency that is not the way to do it. If your trying to get to your 2031 legislative goals, that's not the way to do it. Fundamentally it becomes what are you trying to achieve with it? I think that Larry pointed out, he had the picture with the fireplace that you are going to need an addition 20 tons. He is talking about in the middle of the summer someone is running there fireplace to see it. I would argue that you probably shouldn't be doing that.

*Todd Breyreuther asked: For California, again what is that timeline, the earliest that regulation would go into effect?*

**Louis Starr:** I want to say that it is next year but Nick is all over that timeframe and actually I don't know if Nick is on the line but even if you're able to do that but Nick can get those. Nick are you there?

**Nick O'Neill:** Yes, I am on the line. Just let me know if you want me to weigh in.

**Louis Starr:** Weigh in Nick with what that question is if you can.

**Nick O'Neill:** I think that the final timeline has not been set but I agree that it's sometime next year. They are taking public comments right now on their proposals and I am weighing those. I am not up to date on the next committee meeting but I believe that it is in the next two months.

*Andrew Klein asked: Nick, is it going through their building code council?*

**Nick O'Neill:** *It is applying standard and then a building code council yes. They have that pathway.*

*Kevin Shutty stated: We've heard a couple of times today that this might not be the most appropriate venue to have this. I am just reiterating comment. They're may be other venues, I am just restating some of the comments that we heard. I also heard that there would be a willingness to work on a potential compromise on this. Would there be the potential to pool this? Line it up a little bit better with other efforts that are happening in other states, BC. Go through that process so that we don't get ourselves out to far over our skies.*

**Louis Starr:** California has the ability to do that Washington does not.

*Doug Orth stated: I am going to interject here. In this cycle we're in a time crunch and I'd like Richard to comment on that.*

*Richard Brown (Council Staff) stated: Louis I just want to be clear that*

*all interest in this and all topics before the council today are in the CR102's. All public testimony ends September 27<sup>th</sup>. Whatever information is provided in public testimony and what is currently in the CR102 is what the council has to deliberate on. It is not open ended.*

**Louis Starr:** You know the approach that I think would be the best is that if the industry is willing to work with us we are willing to work on a compromise. I think specifically what we would be willing to do is potentially delay the implementation date and then also on the decorative side we are willing to work on the efficiency requirements for that. You know we could decide on zero percent. I am not suggesting that but I don't have anything right now. So that is the nature of that. We would do that through a public comment and then you know we would probably run it through the MVE Committee. Work it through there and then they submit a comment through the state building code council.

*Richard Brown (Council Staff) stated: Louis that is the point I am trying to make is that this doesn't go back to the MVE Committee. It is in the CR-102 which is a rulemaking mechanism. The council will look only at what is in the CR-102 and testimony received regarding the CR-102. The council could choose not to address this and then send it through the regular process but that will not be in this code cycle.*

Discussion continued in regards to the process. Another public hearing will be held September 27, 2019.

*Kjell Anderson asked: You mentioned that there was something that Washington State could not do regarding efficiency standards.*

**Louis Starr:** It is basically that I don't think that it is a practical thing to go through a standard process on this particular product. It just to me is not a realistic pathway for getting regulations on efficiency and gas.

*Kjell Anderson asked: You saying it's not realistic? It's not possible?*

**Louis Starr:** Right. In my view.

*Kjell Anderson asked: And which of those two is it? Realistic or not possible?*

**Louis Starr:** Chuck would be the best one to answer that question but I would say in my opinion that it is not realistic.

**Chuck Murray:** I will straighten this out. Standards in the state of Washington are adopted by legislation. So there would have to be a bill that adopted a specific standard. Now we do have a wee bit of rulemaking authority but not much. It happens when a bill drops.

*Kjell Anderson asked: I have a question for both of you. I wasn't clear, Chuck, when you said both in appliance efficiency and in the code are appropriate. Is that an, and in your opinion, and that there is precedence for that or is it an, or?*

**Chuck Murray:** We have proceeded standards and we have followed standards in the energy code. It goes both ways.

*Kjell Anderson asked: Can either of you give a brief history on why we*

are using an efficiency matrix as opposed to an impact? If efficiency is correct then how did we get to 65? In the energy code tag there was a bunch of information presented of fireplaces sold in Washington.

Andrew Klein asked: Is there a standard to which these fireplaces are tested.

**Louis Starr:** Yes, Nick do you want to chime in on this one?

**Nick O'Neill:** Someone came up and gave a public comment before and I noted this but in Canada they have created a fireplace efficiency metric and that is what fireplaces are tested too. Both decorative and vented heater. There is a fireplace efficiency score an FE score. That is what the regulation is circled around both in Canada as well as what is being proposed in California and also what we are proposing here. Originally the DOE went with the AFUE and that's what determined to be an efficient metric. There is no federal legislation regarding that and I think that the industry and the appliance standards around the country are reluctant to use [inaudible] metric compared to AFUE when you are looking at fireplace efficiency. The 65% that we came up with was based on market characterization studies that many utility companies have been running for the past several years on fireplace replacement programs. That was found to be the sustainable level in the market for fireplaces.

**Rich Dakan:** We are here to talk about item 20. We've got 7 locations throughout Washington state which we employ 55 employees with them. We also have 5 other locations in the outer lying states. With this new 20, if it gets passed through it will really affect our business by millions of dollars because with not having efficiency that you're looking for we are not going to have anything to sell. That is going to affect pretty much everyone out there in the hearth industry. You are going to see fireplace shops closing down. You are going to see people get put out of work. I myself, my job would probably be affected. Which, I don't want to lose my job. Obviously we've got to support our families so for Thrifty's side we strongly oppose this 22 sorry. Thank you for the declaration.

**Shilpa Surrana:** NEEA is a collaboration of different entities and energy efficiency organizations which support to advance energy efficiency in the NW region. We work on both gas and electricity side. In the Washington code space NEEA supports [inaudible] 01:43:13 to help support code proposals that help prevent energy efficiency in Washington. In particular we are supportive of the R23 proposal on R406 which expands the option tables and the R31 proposal which further expands the option table with additional energy efficiency credits. These proposals have been vetted through a rigorous energy monitoring process and [inaudible] have been tested through Washington State as [inaudible] This proposal specifically the R31 was set to code to achieve the target of energy reduction of 5% over the Washington state 2006 space [inaudible] and is in line to meet the energy reduction targets. R31 proposal specifically to advance the code more quickly in abundance with the executive order 1404. With that I

will conclude. Thanks for giving us the time to provide public comment.

**Ryan Robertson:** I work here in Spokane as a fireplace contractor, insulation and repair specialist and I have been in the field 16 years now. I have seen a lot of different products come through. As Bill might have mentioned, my local distributors. I've heard a lot of information in this meeting and one thing that I think that has been missed is that decorative appliances are primarily for entertainment purposes. So that would be like saying ok we are not allowed to have flat screen TV's in our homes anymore. So really the efficiency rating of that fireplace shouldn't matter so much where it should be what is the part per million of carbons that fireplace produces. Because when we talk about efficiency we talk about the heat transfer in the home or through the heated shank system. Thank you.

**Nick O'Neill:** So as the proponent on these two measures regarding pilot lights and heater efficiency. We heard several public comments that spoke to the volume of business that could be impacted by this and I think that this just underscores just how many of these appliances are going into new homes and the reason why we would like to see some regulation. As Louis said, we are willing to work with the industry on some common sense regulation that works for both their sales volume and achieving Washington's carbon reduction energy efficiency goals. I guess I would like to work with them on figuring this out and we have been working together for the past several months exchanging dialogue, meeting in person, talking about options for better understanding the market. What we can and can't get in terms of sales data and listening to their concerns. I think that it has been a pretty good cordial relationship and I would like to continue that and continue through the comment period. I think I mentioned before as we vetted here that building efficiency levels are sound and can be supported by the market and it sounds as if most of the concern is on decorative and that is what I would like to focus with them on is defining levels for that as seems appropriate. Lastly on continuous pilots I know that HVCA supports the policy being eliminating them and we've heard about these cold start issues before in the industry. The industry has responded by greeting these ignition systems with the need to resolve that. More importantly the elimination of continuous pilot lights is in line with what has already passed in Canada. What is likely to take effect in California. Many other states have already banned continuous pilot lights on appliances. This proposal would help keep the entire West coast in line with appliance standards that are going into place in Canada and in California. We see that as a benefit. I am going to wrap up by saying, we think that there is a chance we can work together to come to a compromise. We are definitely willing to do that with the industry to support this proposal going forward.

*Kjell Anderson asked: Did I hear you say that in the new Canadian standard continuous pilot lights are banned?*

**Nick O'Neill:** Correct.

*Micah Chappell asked: On the referenced CSAP41, that standard*

	<p><i>explicitly states that it does not include decorative appliances. Could you explain what your decorative appliance is in this instance and is it only those listed or indicated to be less than 9,000 BTU's per the exception? If this standard does pass, how does it align with CSAP4.1?</i></p> <p><b>Nick O'Neill:</b> Sure and I am happy to have somebody more knowledgeable on CSAP chime in if they are available but my understanding is the P4 test is agnostic to what the appliance is meant to do whether it was decorative or vented heater. There are separate ANCI certifications for decorative versus vented heaters and primarily I think you heard this from one of the proponents those have related to whether the appliance has a thermostat connected to it. That is the primary difference between the two. The P4 test simply tests for efficiency of the appliance and that is why you see a pretty large range Louis stated between 3% and upper 80's percent for vented heaters. The exception that we provided in there was an exception for very small appliances that are not meant to really provide any source of useful heat space. There is a way to allow for those to pass through. If this took affect it would have no bearing on the P4 test. That test would just test efficiency regardless of what the appliance was certified too by ANSI.</p> <p><i>Al French asked: Provide a little clarity on this for me Nick if you don't mind. When you differentiate between decorative and not being decorative as whether it has a thermostat. So I've got a brand new home and it's got a fireplace activated by wall switch. Are you saying that's decorative?</i></p> <p><b>Nick O'Neill:</b> It depends on what the appliance was rated to. It is my understanding that if you're rated to MCV21.88 and you are a vented gas heater and that means that you will have a remote thermostat or the ability to have a remote thermostat connected. If you are rated to V21.50 you are not allowed to have a thermostat connected to it. In essence, if you're just having an on/off switch I believe that could be either appliance but if it is an actual thermostat that turns the unit on and off then that would be a vented heater and not a decorative appliance.</p> <p><b><u>A break was taken by the council.</u></b></p>
<p>5(e). Public Testimony on IRC</p>	<p><b>Jim Tidwell:</b> The issue that I am here to talk about is the proposed update or the proposed standard update to the 2019 standard. The numbers 603352-40, there is actually three of them Canadian and ANCI which is Mexico NUL. This is the standard that will regulate air conditioning equipment and because it is an update to the IRC not the IMC, not any other code. Just the IRC. It only applies to the group 1 and 2 family and the residential code structures. The purpose of the update from the 2017 to the 2019 was to introduce regulations relating to equipment using flammable refrigerants. Specifically mildly flammable. They are called A2L refrigerants. I guess I want to say first that I've like a lot of people in this room I've been in this business a long time. I was telling a guy a while ago my first committee assignment</p>

was a uniform fire committee in 1988. In all the years I worked for the fire department, I worked for ICC for a while and I've been consulting about ten years, I don't ever recall a code body, whether it be a model code or a jurisdiction using a product safety standard to introduce and regulate a new risk in our community. The new risk is flammable refrigerants. What you are being asked to do is adopt a product safety standard. This ULA standard. Which again is a product safety standard not an installation standard, it's not a code language. It's a listing so that in the residential code there are no additional regulations on flammable refrigerants because until very recently no one wanted to manufacture equipment with flammable refrigerants for all of the obvious reasons. The reason the industry is going that direction is due to some environmental concerns. So, we get that. The Honeywell position is that we support the adoption and the use of low GWP refrigerants. We would like for it to be done safely. We would like to not hurt it. This has been under discussion for a long time so it's hard to say it's being hurried but there is a significant amount of research that is left to be done. What you're being asked to do is incorporate a product safety standard into the residential code which will become the law in the state of Washington. If someone wants to install HVAC equipment in your home they may choose to install a unit with flammable refrigerant un-odorized, because all of these refrigerants are un-odorized flammable refrigerant running somewhere around 400 PSI through piping in your attic, in your walls, in your house. A product safety standard is one component of the regulatory scheme that is necessary to regulate this standard and installation. What is not included in the product safety standard is the installation standard. ASHRAE is working on a residential regulation standard 15.2. ASHRAE already has an installation standard called ASHRAE 15. Both of those, either 15 already addresses flammables, 15.2 will address flammables specifically for residential. The IRC that you're adopting doesn't reference either one of those standards. So you've got a product safety standard, no installation standard and no language in the code telling you where you can install this equipment. Whether you can install it in closets or not. How big the room needs to be. How far away from the building it may need to be. Are you in the wild and interurban interface and how is that going to apply. None of those issues are addressed by the product safety standard. It is a pet standard if it is going to have some installation criteria in it. It's actually got quite a bit installation criteria in it but if you want to enforce it you have to go buy a \$550 standard. That is the cost. The other thing that I want to say is that standard has yet to be published. The target date for publication is November 1<sup>st</sup>. So from my perspective, I think that it is important for the people that are going to be affected by standard, before you adopt it, it should be published and people should have the opportunity to at least read it. You have a written document, four or five documents, and a little packet that I put together. It's got a lot of the technical criteria in it. It's got a lot of the philosophical and legal criteria in it. It has all of the public comments to the ICC public code change that is identical to this one that is being processed. There are I think nine or ten public comments there. I wanted you to see what the

different organizations across the United States are saying about from a national perspective. I wanted to call your attention to the fact that there is not a single public comment in the ICC publication of support of the adoption of that standard. I am going to quit because I know that you guys have a lot to do today.

*Andrew Klein asked a question: Have you ever put in a public comment in support of the committee action?*

**Jim Tidwell:** I have. Tell them who you represent.

*Andrew Klein stated: I also represent Chemours and I was also the proponent of this code change that we are talking about. Second question for you. Would you be alright and would it satisfy all of your concerns if we put a sentence in the IRC stating that the systems using A2L refrigerants must comply with ASHRAE? Would that satisfy your concern?*

**Jim Tidwell:** No. 15.2 will be the installation standard that ASHRAE is producing.

*Andrew Klein stated: You're aware that 15.2 is not going to have anything new it is just taking what is in 15 out. It's a simplified approach.*

**Jim Tidwell:** No. I am not aware of that. The last draft that I saw had distance from buildings and basement installations and things like that, that aren't in 15. Now they may have stripped those out and if they did they made it weaker. If they stripped those things out of 15.2 then a code body needs to come back and put that information in the code because those are important safety criteria and they are not in 15. Thank you.

**Paul Armstrong:** Johnston Controls is both an innovator in both building technology and in the safety to the building environment as well. JCI is a global leader in these areas going back to 1885. Interestingly enough over the last ten years, here in the state of Washington JCI has helped its customers save 855 billion BTU's of energy through the energy efficiency licenses and services they provide. We are very proud of that. JCI is also a leader in fire protection and suppression. So much so that even over a century ago it invented the first sprinkler. So we have a concern not only in the innovation of the use of materials chemicals in the line of terms of refrigerants but also in the safety to the built environment. What JCI really wants you to know is that we do not oppose the inclusion of A2L refrigerants in a safe and proper manner. This is an incomplete package and so that is why we are speaking against that. The items as I recall that are on your list are items 75, 78 and 79. Just so you know. A little brief background about my history and why JCI was proud to hire me. I worked for 14 years for the International Conference of Building Officials and then made the transition to the ICC, International Code Council. During that time and as we made that transition I was the original drafting secretary to the International Residential Code. So, I understand certainly how that particular document of that code was put together. Most recently, this last spring I was part of the IRC building code development committee and we heard the code changes that are going through currently in the

group B cycle right now. I can tell you that flammable or mildly flammable refrigerants were never a consideration in any of the fire protection aspect that was built into or currently being built into the International Residential Code. We have some major concerns with that. The IRC and the members of ICC has taken the inclusion of the different fuel products and things of that nature to heart in the construction that is covered by the International Residential Code and in fact has built in fire protection types of elements into those particular provisions. There are more studies that are going on right now as I understand. We're waiting for those. We are encouraging those. From what I understand the industry is still talking about with you about how to solve some of the problems as well. Just know that this is an incomplete submittal. This only covers the construction that is covered by the International Residential Code. That is 1 and 2 family dwellings and town homes and their accessory buildings that are the three story or less in height. Everything else would be subject to the same prohibition that we have currently right now for flammable refrigerants and that is going to cause a lot of confusion I think certainly in the design community but also in the enforcement area where the building officials, inspectors, the plan reviewers are going to have problems trying to basically decide on the proper installation of these systems. The other thing that was not really pointed out was that from what we understand in the draft standard, the safety standard that there is an additional sensor or two that Jim had eluded too that will be required. So it is increasing the cost of construction as well. We haven't seen those numbers. The code change is currently going through the ICC process right now which is provided in the same manner as it is now as just a simple update to the UL6335-240 standard to the 2019 addition. It was heard in front of the administrative committee. Not a technical body. So the issues related to these fire resistant rated protection elements that we would expect to see we not considered. We're not even addressed. So what we would like to see certainly, in order to more properly utilize and deal with the hazards associated with these mildly flammable refrigerants is certainly a more complete package that would address all uses. All of the uses. Certainly the residential uses that are covered by the codes. We anticipate further analysis coming out of the industry and alike. I want to thank you for listening and would welcome any questions.

*Andrew Klein stated: More of a comment but you are welcome to respond. You are aware also that this new statement permits the use of A2L refrigerants it does not mandate them. So if that does increase the cost, you know that would be a consumer choice.*

**Paul Armstrong:** Except that there are movements a foot as you indicated that would seek to eliminate the use of some of the A1 refrigerants in favor of these A2L refrigerants. As such we would still expect to see the cost of construction discussed.

*Andrew Klein stated: So if that is the case then we need the regulatory framework in order to install these A2L systems. Which is what these standards would do. I think that we've got John Tacker from UL on the line who will speak later, but I think that he can also speak in terms of,*

*in response to the grading of equipment as well as sensors.*

**Paul Armstrong:** And certainly by the buildings that are covered by the International Residential Code. We would expect to see more information coming out of UL, coming out of various groups as well. However, we have other residential uses, even single family dwellings that are not covered by the residential code where this would not be allowed then. It still doesn't address the completeness of the package.

*Kjell Anderson asked: I guess to what you just said. What would make it a complete package?*

**Paul Armstrong:** A complete package would certainly have the fire protection elements that we would expect to see in the residential code and certainly the mechanical code at the very least. It's likely that we would see things such as, I think that Jim mentioned making them nation requirements. Certainly the application of fire resistance rated, maybe type X with some wall board in different ways. Things along those lines would be something that would be normal during the code development process.

*Kjell Anderson asked: And those are now part of the ASHRAE 15 or the 15.2?*

**Paul Armstrong:** No they are not.

*Andrew Klein stated: I would like to correct that. They're mitigated measures in part 2.4 UL240 which do limit refrigerants to 25% of the lower flammability.*

**Paul Armstrong:** Absolutely. We would expect to see that, at least to see the technical aspect of the use of these refrigerants addressed in that manner through the residential code. We do that now. Right now with the installation of fuel gas fire and in the new code electric fire heating appliances in crawl spaces where we provide certainly a layer of protection on the underside of the forge of the ceiling assembly above. Thank you. Can I just make one more correction? There are ventilation requirements in 15 that true. Not in the residential code.

**Carolyn Logue:** We are opposing the inclusion of item 75, 78, 79 and the amendments to the IRC that would allow the A2L flammable resistance in residential system. [inaudible] The main concern for our contractors is that we don't feel that the training and the outreach is adequate to protect the public and to protect our contractors and workers on using these flammable refrigerants and these systems. So whether it is mandatory. Whether it is required or voluntary we just don't think that the training is out there yet and so it is premature. But beyond that Washington ACTA believes that this addition is really putting the cart before the legislature horse. We spent a lot of time this year in the 2019 legislature working on how E2SHB 11, 12. Prohibiting HFC's and using the list of EPA's now 2021 systems in commercial. We were told over and over as we discussed this bill with our concern we were asking for a delay in implementation for the very same reasons we are concerned here. We don't believe that the training is out there for the contractors yet and because so many of the refrigerant materials are flammable we need more training for our contractors. So we were asking for a delay which we did not get/receive so January's 2020 is the

start for commercial. Section 7 of the bill reads that the building code council (SBCC) shall adopt rules that promote the use of substitutes approved under section 3 of this act and do not require the use of these substitutes that are restricted under section 3 of this act. In this act, the Department of Ecology is developing the approved list of alternatives. We think that it really would not be good for the building code council to move forward with something in residential that hasn't even started to move forward with something in commercial yet. In addition, section 8 of the bill, has the Department of Ecology, the Department of Commerce and the Utility and Transportation Commission in Washington State addressing how to increase the use of refrigerants with the global warming potential in mobile sources, utility equipment, consumer appliances and how to reduce other uses of hydrofluorocarbons in Washington. There is a study. The report is due back December 1, 2020 that will be looking at all of this. The SBCC at the MVE level is currently engaged in the implementation of passed bill 1112. We are participating in that as well as all of our manufacturers that are sitting around here and all the people that are involved in this. We would encourage you to move this back and let the implementation of 1112 go into place so that commercial perhaps is proceeding that. The Department of Ecology is actually developing a level of the approved alternatives and working on that and that there is time to get our contractors trained and working on these systems before they are in the commercial applications before we go into houses. Thank you.

*Micah Chappell asked: What is an acceptable timeline for implementing this for your side of the industry since you want a delay. You're asking for a delay? Two years? Five years? Ten years? When I am online looking through the monograph of the public comments of the ICC you are talking about the 2021 code which won't go into effect until 2023 technically and they are opposed to that at this point which is still four years out.*

**Carolyn Logue:** I am thinking because actually a lot of the training hasn't been developed yet and we are still working on that process particularly in the national ATCA groups that they were hoping to four to five years to get that training. You've got to remember how far your outreach has to go in getting that training out to the contractors out there. In the legislative discussions we had asked for a one year delay just to give us a bit more time. We started with two and then tried to get one but it didn't work. Thank you.

**Chuck Murray:** I am also here to talk about refrigerants which makes me way out over my skies. I have limited expertise on this particular subject but I did talk to our folks at Department of Ecology and the Governor's Office before coming in. You know I read through what sections of the standards I could find online and it has things like labeling which would include technical labeling for this equipment indicating it is flammable. Leak testing. Gas leak detention sensors. Drop testing of the package units so it makes sure that you didn't break it in shipment. Those are the sort of things that I see in this standard. The other thing that I want to comment on is we typically update the reference standards when they become available. That is our standard process. UL it is a

well-recognized organization. They do a good job. Now I am going to say that I focused on the standard. I didn't focus enough perhaps on application of the standard. So I do agree with the folks that say if we are going to apply this standard then we do need a good set of instructions. I also think that we know that is going to be in our market place. To say that we are not adopting the most recent standard of stuff that is within our market place I think that is a consideration that needs to be taken as well. Thank you.

**Anne Anderson:** I am new to this Washington state code and adoption process so forgive me if I'm not in the right place at the right time. I'd like to talk about the live load table or 301.5 and the adoption of that. Is that ok? Ok, so I own a structural engineering firm and our niche is home builders. Its residential engineering and all of our clients are home builders. I am also on the ICC, IRCB code development committee and I along with Paul Armstrong served on the committee this past May. I am specifically talking about the live load for decks. So Washington state wants to once again amend the IRC's live load table to go from 40 lbs. per square foot to 60 lbs. per square foot. This past May that was also a proposal to change the 2021 code that did get voted down. I would like to speak just for my own personal knowledge. I engineer homes day in and day out like I said all of my clients are home builders in this state and when we change from 40 to 60 that increases the cost of homes. That increases the cost of decks. It increases the load on the deck about 40% and so therefore it increases the cost of the wood on the deck by about 30 to 40%. So we are getting larger members more frequently spaced joists and heavier ledgers. I am not sure what the reason is this change. The live load requirement for a house, for inside the house is 40psf. So why would we have 60 on the adjacent deck? 40 is pretty a tight space of people. 40 people is about one person every 2 feet on center. I was looking at these carpet squares while everybody was talking about energy and my mind kind of wandered. Every carpet square here looks to be about 2 feet so that would be one person in every carpet square. That's a lot of people. Now if you up that to 60, ok if you look at a 4x4 plot. 4 squares of carpet, there would be 4 people there just to give you a visual. If you go 60 you are going to have 6 people there that is a lot of people. I am just not sure why we are adding this cost for a house. I understand commercial that is a different vein. My public comment is to not amend the code again in 2019 and keep it at 40. One more thing. Generally speaking I want to talk about what is says in the intent chapter of the IRC. The IBC and the IRC both have a statement in chapter one entitled intent and they read almost identically except the IRC it says "the purpose of this code is to establish the minimum requirements to safe guard public safety, health, and general welfare through affordability and structural strength egress, blah, blah, blah." The word affordability is only in the IRC. I just want to give that out to you guys. The state IRC, the residential code and the appendix that we provide for affordability if you could just keep that in mind that would be great. Any questions?

*Richard Brown, Council Staff stated: I hate to be the bearer of bad news*

*but unfortunately you are too late. The only issue before the council was not the change to 60 because that already is a state amendment. Before the council is just footnote I that states “where structural load tables in section R507 only specified snow loads the value corresponding to 70PSF snow loads shall be used.” That is unfortunate for you but that unfortunately is the only issue before the council to discuss.*

**Anne Anderson:** Ok, so just for next go around.

*Doug Orth stated: You need to submit a proposed code change on next cycle.*

**Larry Andrews:** I hear about all of this explosion and fire potential with refrigerants and the average amount of refrigerant that is in an appliance is maybe 7 lbs. Out of that 7 lbs. a percentage of it is flat foam. Me as a contractor when I get the equipment, I don't have a choice of what refrigerant comes with it. For you guys to try to mandate something, I think that is totally wrong. We have a hot shot that has been around for a long time that has a little bit of propane in it but I think that the first thing as a mechanical contractor when you have the R22 we are heating our ocean so we have to get rid of that. We all spent a fortune and got rid of that and got re-tooled up for the new one which is 410a and now that's overheating the earth they tell us. All of a sudden it is overheating the earth. When I went to my class on what is causing all of this, it was pointed out to us in class that everything that happens 98% of all this problem is caused by the ocean. In the class they targeted us that was .01 of 1% our industry but I think that we are really kind of getting a bad rap here. I would let the industry dictate what is going to happen but then develop the standards because they have all the testing capability to do it. Otherwise we are going to isolate ourselves to the point that we can't do what we need to. I mean we tried one time to legislate efficiency standards and I think that we got sued over it and we lost. Then we went back to national standards that are made. So I think that we need to let the national people let the process develop and let it go. Those are the people the UL's and everybody that is involved in this needs to be doing this kind of work for us. Not trying to mandate this stuff because we don't know what is really happening. We can guess, but as an installing contractor when my manufacturer gives me this stuff that is what we are going to put in. We don't have choices. You either take this or you don't. Thanks.

**Shane Nilles:** Bear with me because I am going to take a shot at decks but it is going to lead up to something so. That light load that occurred three years ago, last code cycle anyways to go to 60. That was kind of done without going full step and recognizing that is a lot of what these changes are and occurring including items 53-65 a full other 12 items for amendment is doing the rest of the work. That is amending the tables for footings, joists, beams a lot of things still in my opinion a 60 lbs. live load wasn't necessary. That is another item that I can't quite go at today. So it is a lot of other work that basically didn't occur in the last go round and I believe due to a little bit of disconnect what occurs on the east side of the state versus the west side of the state. Here on the east side of the state we have low seismic zones. We do a lot of things

prescriptively. So when that change occurred well all of a sudden what are we going to do with our decks? I guess we have to engineer them all. That is a substantial change in cost that occurs when that is not what is normally needed. Thankfully there was at least an interpretation that came out with the tables and gave us something to deal with for a while and you're making a change now. That brings me to item 42 that has to do with habitable attics. This is a change in my opinion that is not going everywhere that it needs to go. I understand that there are concerns about what happens from the sprinkler standpoint. If we are talking about a habitable attic being an attic not a story and oh my gosh now we got this way high on the tall side of a building. It's not being sprinklered and that could be an issue. I also heard that there was a little bit of concern about what does this mean for our structural span? Prescriptively if we make habitable attics a story it is a major issue structurally with how we comply with the code. As a plans examiner, when you come in and you have a habitable attic they have existed for a long time. I am going to say ok, where your brace wall bands it is a story now? How are you going to do brace wall panels in a habitable attic that has knee walls? It is not in the code. It is not in the prescriptive tables. You can't do a full high wall and do a brace wall panel and then your knee wall. On the west side where a lot of stuff is engineered anyway big deal. If you are on the east side we're prescriptive most of the time and this will make something that is very common not achievable prescriptively. Then just reading the exception to that it talks about if it is above the third story, now it's not a story as long as it is sprinklered. I am not really sure how that all fits in but so now if it is below the 3<sup>rd</sup> story I have to deal with it structurally. If it is above the 3<sup>rd</sup> story I don't because sprinklered it doesn't just all line up it is incomplete. So speaking out against that. Thank you.

**Anne Anderson:** Can I jump on that a little bit? Regarding the habitable attic and the structure and the way you did the value prescriptively it is not another story in that regard. Well he was talking structure. A habitable attic, in the triangle of the attic so the performance of the structure doesn't change whether there is people in that triangle, a room or not.

**John Tackert:** I had a comment on one of the comments that I heard in there and I hope that I heard it correctly is that there was concern about the installation requirements that would apply to the particular products that are under UL60335-2-40. That UL60335-2-40 as part of the requirements, of the intended requirements are required to be installed in accordance with ASHRAE 15. So therefore since that is in the manufacturer's installation instructions the code as we all know require that listed products shall be installed in accordance with the manufacturer's installation instructions and the listings. So therefore, that would be a way of getting to the fact that the UL60335-2-40 products would be having to be installed in accordance with ASHRAE 15. Thank you for the opportunity to comment.

**Heather Walter-Terrinoni:** I've heard the testimony of a couple of different people today and I want to share a couple of things. I am the vice-president of regulatory affairs we represent all of the major air

	<p>conditioning refrigeration manufacturers in the Country and support many folks in their efforts to make this transition a safe one to local potential products. In fact I am the executive assistant for the safe refrigerant task force which is looking at all the adjacent issues around training and better understanding of how to recover a refrigerant at the end of its life and any other issue you can think of including examining all the instances that we can find related to refrigerants. My background is in safety I work for [inaudible] for 20 years. Some of the comments that have been made today are a little bit troubling given that some of the folks, so for example, Honeywell sells HNR refrigerants. Over half of the cars in the United States use HNL refrigerants that are in cars today. These refrigerants are also sold by Honeywell and other companies internationally and have been used safely we can find no incidences nationally or internationally related to an HUL. There was some discussion around training. As we have a training working group that all of the speakers, many of the speakers that spoke today participate in or their companies do. One of the first things that we discovered is that training cannot be completed until the codes are complete. Whatever is put into the codes is ultimately has to be included in the package so that it can be communicated to folks that need through codes and standards process properly. There was a comment that there are no installation instructions or requirements around room size or other specifications that is passively untrue. Those requirements are there in fact there are limitations such that if you're going to build an apartment building that you can't get to the lower flammability limits over the equipment to have a fire [inaudible]. Because of the future around safety and so therefore no ventilation is needed because of that requirement. So a lot of thought we've been working on this for well over a decade. We continue to study this problem and somebody noted that we are continuing to do studies for example. Although many of our members have determined which sensors and detectors and control switches to use in our systems already there are those smaller ones that have not done that work so we have come together as a consortium to continue to study them and to optimize those sensors and control systems for those members. I just wanted to make mention of a couple of those points. We take this transition extremely seriously. We have been working on it like I said for more than a decade. It is happening all over the world where half of the equipment in Australia has been transitioned to H2L refrigerants. Even countries such as Thai Land, so developing nations have started this transition without incident. In several years we believe until this transition will be completed and we've taken plenty of time to come back and make up grades to whatever we need to do but we think that it is important and we support the adoption of these standards into the code. So I will stop there and I invite anybody who is interested in participating into the state refrigerant transition taskforce at HRI and thank you for taking the time to listen to my testimony.</p>
5(f). Public Testimony on IMC	None provided.

<p>5(g). Public Testimony on UPC</p>	<p><b>Shane Nilles:</b> I am speaking in strong support of item 3 involving domestic dishwashers and there discharge there from. This is a really good proposal in just that it provides and option that, quite frankly, being accepted as an alternative all over the state already in where other places it may not and that is kind of creating a little bit of an inconsistency. This would also help clean up but essentially all that it does is just giving that [inaudible] that we refer to as a high discharge rather than going through an air gap that is above the sink. Interestingly if you take a look this is something that happens all over the country. I've done a little research and it is done in Oregon. Not only is it accepted it is the only option, they don't even have anything regarding air gaps with the discharge. This is more conservative than that and it still recognizes the main body of the language which would have that area in place but it also just brings it in as an exception option. When allowed by the dishwasher manufacturer to up there way of discharge to provide equal protection for public safety. Thank you.</p> <p><b>Larry Andrews:</b> The law states that high move but Washington state is not. I think that I would do a little bit more research on that because if you fill your sink up, your sink has bacteria in it and when you let it discharge down the pipe, the purpose of the air gap is to prevent any of that to go into the [inaudible] that is sanitized already. So the question will be, would the high loop provide that adequate protection from allowing the water that was discharged into the dishwasher. You have dropped the sink, the water goes low but it also goes high on the outside like a syphon. The Uniform Plumbing Code has had a strong stance on this. An air gap is required to prevent that from happening. With anything that happens in a sink anymore and all of the bacteria levels. I think that should be something that you should really consider. It really should be researched well whether that is going to be high enough to prevent that from happening. IAPMO does all of that research. They've come up with it that it isn't high enough. So I think that you'd really want to take a look at that language before it is accepted. Any questions?</p>
<p>6. Opinion (Interpretation) Regarding Residential Energy Credit Table</p>	<p>The Council approved draft Opinion 19-Sept01 with one editorial modification.</p>
<p>7. Petition for Reconsideration of SBCC Decision on Carbon Emissions</p>	<p>The Council elected to postpone reviewing this petition until the September 27 Council meeting. The Council asked staff to reach out to the petitioner and ask if he has any additional information he wishes to submit.</p>
<p>8. Staff Report</p>	<p>Richard noted:</p> <ul style="list-style-type: none"> <li>• Staff is working with ICC and WABO to develop ICC published codes containing the Washington State amendments.</li> <li>• The baseline economic analysis required by 1622 is underway.</li> <li>• The SBCC web site wholesale replacement is underway.</li> </ul>

	<ul style="list-style-type: none"> <li>• Council DES email accounts will no longer automatically forward to their personal email accounts.</li> <li>• Richard gave a status report on how the SBCC is responding to SBCC legislative tasks noted in 1112, 1257, 5106 and 5383.</li> </ul>
9. Other Business	None offered.
10. Adjourn	The meeting was adjourned at 1:42 p.m.