



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

Department of Enterprise Services

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### Energy Code Technical Advisory Group Meeting Review Notes for May 31, 2019

**TAG Members Present:** Kjell Anderson, Chair; Alan Nolan; Bruce Carter, Chuck Murray; Dave Baylon; Gary Heikkinen; Hans Frederickson; Jason Ramey; \*Jonathan Jones; Kim Barker; \*Louis Starr; Mike Fowler; Mike Lubliner; Patrick Hayes; \*Poppy Storm; \*Tanya Beavers; Tena Risley; Treasa Sweek

**Visitors Present:** Shilpa Surana, Graham Wright, Henry Odem, Shane Nilles, Carolyn Logue, Dave Nehren, Jenifer Gilliland, Mike Kennedy, Nick O'Neil, Luke Howard, Edward Hosack, Duane Jonlin, Al Audette, David Mann, Eric Lyons, Eric Lacey, Dan Whitmore, Roger LeBrun, Dana Moroz, Bob Hitchner, Kent Mitchell, John Crouch

**TAG Members Absent:** Alan Duer, Amy Wheelless, CJ Brockway, David Reddy, Robby Oylear, Todd Blevins, Paul Highly

**Staff:** Krista Braaksma

\* indicates an alternate member

Agenda Items	TAG Actions
1. Welcome and Introductions	Meeting called to order at 9:02 a.m. Kjell Anderson welcomed everyone and introductions were made.
2. Review and Approve <a href="#">Agenda</a>	Agenda modified to change the order of proposals. It was also noted that R24 had been withdrawn and R15 had been acted on at the previous meeting. The Section R406 review was moved to after R10, R 34 was moved between the two. R28 and R27 were moved up to be heard after R04. R11 was moved down to be heard before R07 and R09 will be heard immediately after.
3. Review and Approve <a href="#">Minutes</a>	The minutes of the May 17, 2019 meeting were approved as written.
4. Review of Code Change Proposals	
<a href="#">WSEC-R10</a>	<p>Alan Nolan introduced a <a href="#">revised version</a> of his proposal worded to be more consistent with the other options in the category. It incorporates a 0.28 window with the raised heel truss and advanced framing. The TAG discussed the required space for insulation.</p> <p>Chuck Murray introduced a modification that left out the language on free space and referred the user to Appendix A.</p> <p>Chuck Murray and Patrick Hayes moved to recommend <a href="#">approval as modified</a> with Chuck's language. The motion carried with no opposing votes.</p>
<a href="#">WSEC-R34</a>	Dave Baylon felt this may be a good option if it provided full floor insulation and was vented at the same level as the house rather than crawlspace venting. Patrick Hayes felt the insulation should be the same as for

	<p>basements. He noted this has been voted down in previous code cycles. Jonathan Jones said the proponent was trying to establish a better interpretation and pathway for an insulated crawlspace. Dave Baylon noted there would be a lot of heat loss through the floor. He acknowledged there were pieces of the IECC requirements related to insulated crawls that should be cleaned up in the future.</p> <p>Chuck Murray and Treasa Sweek moved to recommend disapproval. The motion carried with no opposing votes.</p>
<p><a href="#">R406</a></p>	<p>Krista put together a revised Section R406 incorporating the proposals heard thus far. She also reorganized the options table for better clarity and usability. The TAG went through the document and made some corrections and refinements to the language.</p> <p>Chuck Murray and Mike Fowler moved to approve the changes in <a href="#">Section R406</a> but only providing the higher credit requirements in Section R406.2.</p> <p>The TAG decided they would like to keep the carbon emissions proposal separate from the other R406 proposals.</p> <p>Chuck Murray modified his motion to specify that the carbon emissions proposal (<a href="#">WSEC-R36</a>) will be considered separately and reflect the credit requirements from Duane Jonlin's <a href="#">WSEC-R31</a> proposal. The motion carried 8 to 6.</p>
<p><a href="#">WSEC-R04</a></p>	<p>Shane Nilles introduced a revised version of the proposal to help clarify the insulation requirements for under water heaters. Patrick Hayes noted the insulation should specify "noncompressible" instead of "incompressible." He also felt it should specify EPS insulation. Others felt there were other forms of insulation that would work and shouldn't be excluded.</p> <p>Dave Baylon and Chuck Murray moved to recommend <a href="#">approval as modified</a>. The motion carried with no opposing votes.</p>
<p><a href="#">WSEC-R18</a></p>	<p>This is just a simple pointer section to the commercial portion of the code for the federal minimum efficiencies.</p> <p>Dave Baylon and Mike Fowler moved to recommend approval as submitted. The motion carried with no opposing votes.</p>
<p><a href="#">WSEC-R28</a></p>	<p>Nick O'Neil introduced his proposal, stating it was based on language from Title 24, but added gas fireplaces. The economic data and support material comes from DOE and Oregon market studies.</p> <p>Edward Hosack, Travis Industries, noted standing pilots serve a purpose in gas fireplaces to help create the draft necessary for natural venting. Patrick Hayes noted that with the requirements for glass doors, you wouldn't be able to manually light the fireplaces. Nick said that short term pilots would be allowed by this language. Dana Moroz, Napoleon/Wolf Steel, said there would be a significant cost to homeowners to upgrade to models with the intermittent ignition system—he estimated \$100-200—and there would be an increase in service calls.</p> <p>Carolyn Logue, HPBA, lobbied for the industry to develop a standard rather than having it dictated through the energy code.</p> <p>Chuck Murray and Dave Baylon moved to recommend approval as submitted. The motion carried, 8 to 6.</p>

<p><a href="#">WSEC-R27</a></p>	<p>Nick O'Neil introduced his second proposal, requiring a minimum efficiency for gas fireplaces. This is based on the Canadian standard, and California is also adopting standards. He noted that less efficient models are already being phased out. He noted that Canada has a 50% FE requirement while California is looking at 70%. Edward Hosack noted that both those standards exempt decorative fireplaces. He also felt there would be a significant job loss issue if you eliminate a large portion of the current products. John Crouch, HPBA, agreed that the standard should not apply to decorative appliances. Carolyn Logue reiterated any standard should be set by the industry. Chuck Murray noted that this was based on an established standard that was agreed upon by the industry. He felt it was a consumer protection issue since there was no distinction made between most heating appliances and decorative appliances. Dana Moroz noted that most consumers in the market are not looking for heat, just esthetics and don't want heat from the appliance. Kjell Anderson wondered how code officials would differentiate between heating and decorative appliances. He did not feel it was right to allow one type to use more gas just to provide esthetic appeal. Al Audette felt Washington should let California and Canada take the lead on this issue and see how it works out.</p> <p>Chuck Murray and Treasa Sweek moved to recommend approval as submitted. The motion carried, 9 to 5.</p>
<p><a href="#">WSEC-R08</a></p>	<p>Mike Lubliner introduced this proposal to add the ventilation flow rate to the certificate.</p> <p>Treasa Sweek and Chuck Murray moved to recommend approval as submitted. The motion carried with no opposing votes.</p>
<p><a href="#">WSEC-R13</a></p>	<p>Mike also introduced this proposal allowing jurisdictions to request documentation of air leakage and duct testing.</p> <p>Chuck Murray and Treasa Sweek moved to recommend approval as submitted. The motion carried with no opposing votes.</p>
<p><a href="#">WSEC-R21</a></p>	<p>Chuck Murray and Mike Kennedy introduced a revised version of this proposal that doesn't make any technical changes, but clarifies the envelope section.</p> <p>Patrick disagreed that it didn't make changes, noting the equations now have a 15% glazing cap for the target UA. He disagreed that the intent in the current R402.1.5 applied across the board—it should only apply when using REScheck. It doesn't apply for prescriptive buildings, so why should it be in the UA alternative? Duane Jonlin and Chuck disagreed.</p> <p>Chuck Murray and Treasa Sweek moved to recommend <a href="#">approval as modified</a>.</p> <p>Patrick Hayes and Jonathan Jones moved to modify the motion to strike the 15% glazing limit in the UA equations. The motion failed, 5 to 7.</p> <p>The main motion carried, 8 to 2 to 3.</p>
<p><a href="#">WSEC-R05</a></p>	<p>Patrick Hayes felt that the added assemblies were not buildable equivalents to and R-21 wall. Dave Baylon felt that since you could design alternates already, the table doesn't need to spell out those alternatives.</p> <p>Dave Baylon and Patrick Hayes moved to recommend disapproval. The motion carried with no opposing votes.</p>

<p><a href="#">WSEC-R12</a></p>	<p>Mike Lubliner said this would help with existing buildings, and would decrease the number of garage retrofits done without a permit. The TAG discussed whether this should be located in Chapter 5 since it only applied to existing buildings, but not alternatives were presented. Chuck felt it should be a separate footnote. The TAG also discussed the requirements for fire protection and how to incorporate those into the language.</p> <p>Chuck Murray and Treasa Sweek moved to recommend <a href="#">approval as modified</a>. The motion carried.</p>
<p><a href="#">WSEC-R22</a></p>	<p>Chuck Murray introduced a proposal that replaces the log home footnote with a reference to the ICC 400 standard for log homes. While the performance of log walls is still below that of an R-21 wood framed wall, ICC 400 is a lot closer than the previous requirements.</p> <p>Dave Baylon and Patrick Hayes moved to recommend approval as submitted. The motion carried.</p>
<p><a href="#">WSEC-R14</a></p>	<p>This proposal was withdrawn by the proponent. This was addressed in R21.</p>
<p><a href="#">WSEC-R25</a></p>	<p>This proposal was withdrawn by the proponent. This was eliminated by R21.</p>
<p><a href="#">WSEC-R11</a></p>	<p>Jenifer Gilliland introduced the revised proposal requiring programmable thermostats in accessory dwelling units. It should be clear that ADU's need separately controlled thermostats.</p> <p>Treasa Sweek and Bruce Carter moved to recommend <a href="#">approval as modified</a>. The motion carried.</p>
<p><a href="#">WSEC-R07</a></p>	<p>Gary Heikkinen introduced the revised proposal which adds a definition for smart thermostat. The TAG felt the term should be changed from smart thermostat to connected thermostat. They rewrote the definition to sound less like a product insert. Chuck Murray felt the term "or installer" should be struck. The TAG also wanted to include a third exception for ductless mini-splits.</p> <p>Chuck Murray and Dave Baylon moved to recommend <a href="#">approval as modified</a>. The motion carried.</p>
<p><a href="#">WSEC-R09</a></p>	<p>Gary Heikkinen also presented the next revised proposal requiring a smart thermostat for electric zonal systems. Hans Frederickson commented that this requirement may actually turn on the backup more often and increase energy use.</p> <p>Jonathan Jones and Bruce Carter moved to recommend disapproval. The motion carried with one opposing vote.</p>
<p><a href="#">WSEC-R30</a></p>	<p>The TAG discussed this proposal requiring PV on all residential construction. Dave Baylon noted it bas based entirely on California data for cost and energy savings that are not accurate for Washington. Mike Lubliner noted it would impact the R406 requirements since solar currently gives you credit for solar. Poppy Storm acknowledged the proposal has flaws, but felt that Washington would need to adopt something similar in the future to meet the statutory goals.</p> <p>Chuck Murray and Patrick Hayes moved to recommend disapproval. The motion carried with no opposing votes.</p>

<p><a href="#">WSEC-R33</a></p>	<p>Poppy Storm introduced the proposal to require electrical service for systems currently using gas or propane to facilitate later replacement with electric appliances. She noted that this is important for de-carbonization. It should have a low impact since many of the appliances may already use electricity—she estimated \$170 per appliance. Hans Frederickson noted that the wattage requirements were all over the map, especially for cooking appliances, and the requirement here may not reduce the cost of later electric installation. Gary Heikkinen noted that this proposal increased cost without resultant energy savings. Alan Nolan agreed. Mike Lubliner asked if L&amp;I had any concerns with this proposal or if there were any conflicts with the electrical code. Hans did not believe there would be a conflict.</p> <p>Chuck Murray and Mike Fowler moved to recommend <a href="#">approval as modified</a>. The motion carried, 7 to 6 with two abstentions.</p>
<p><a href="#">WSEC-R32</a></p>	<p>Graham Wright introduced the proposal to allow Passive House as one of the compliance paths. This would also include all the mandatory provisions in the current code. He noted that ASHRAE is currently working on an ANSI-approved version of Passive House. In response to questions, Graham noted the software was proprietary and would depend on the option taken. Patrick Hayes noted the software needed was expensive. Mike Lubliner asked if this software would meet the current code requirements for software. The response was that this was a separate path and would be an exception to the requirements for R405 software. Duane Jonlin felt it would take some of the burden off the building department.</p> <p>Hans Frederickson and Mike Fowler moved to recommend <a href="#">approval as modified</a>. The motion carried 9 to 1, with 2 abstentions.</p>
<p>5. Other Business</p>	<p>None.</p>
<p>6. Adjourn</p>	<p>The meeting was adjourned at 3:02 p.m.</p>