

**Residential Code Review Committee
2008 Oregon Residential Specialty Code
Regular committee meeting minutes
- DRAFT -**

June 28, 2007

Members present: Patrick Bridges
John Caul
Chuck Day
David DeHarpport
Gary Lampella
Raymond Miller
Alan Seymour

Member absent: none

Staff present: Mike Ewert, code specialist
Terry Swisher, chief plumbing inspector
Richard Rogers, structural program chief
Heidi Shamberger, structural para-technical specialist
Marianne Manning, rules coordinator

Guests present: Betty Merrill, Department of Energy
Tom Eckman, Northwest Power and Conservation Council
Ross Schultz, City of Sherwood
Brady Peeks, Department of Energy
Erik Swinney, City of Eugene
Jeff Harris, Northwest Energy Efficiency Alliance
David Cohan, Northwest Energy Efficiency Alliance
Michelle Halle, Jeld-Wen
Lana Butterfield, Northwest Propane Gas Association
Kendall Youngblood, Energy Trust of Oregon
Dan Cote, Conservation Services Group
Phill Damiano, Northwest Natural
Steve Bryant, League of Oregon Cities
Molly Brady, First Call Heating
Terry Lucich, City of Carlton
John Patterson, City of Medford
Ernie Platt, Oregon Home Builders Association
Glenn Waer, Earth Advantage
Eric McMullen, Oregon Fire Marshals Association
Gary Marshall, Oregon Fire Marshals
Dan Patterson, Medford Fire & Rescue
Guy Sperb, City of Oregon City
Robert Rice, Josephine County
Randy Simpson, Oregon State Fire Marshal

Jim Schwager, Portland Fire & Rescue
Darrell George, City of Portland
Deborah McDermott, McMinnville Fire
Peggy Collins, Collins Consulting
Robert Rice, Josephine County

1. Introductions and Process

Chairman Patrick Bridges and committees members introduced themselves. Chairman Bridges asked audience members intending to testify to sign the registration sheet. He indicated that testimony would be limited to five minutes and redundant testimony would be limited whenever possible.

2. Approval of minutes

Chairman Bridges indicated that the motion on page 8 of the June 14, 2007 committee meeting minutes pertaining to M1601.3.5(1) should indicate that the Oregon amendment deletes model code language which is not relevant in Oregon.

Chairman Bridges ruled the minutes of the June 14, 2007 committee meeting approved as amended.

3. Review of proposals

Appendix X – Rainwater Harvesting, new Oregon amendment

Terry Swisher, chief plumbing inspector, distributed and discussed a [proposed non-mandatory appendix](#) about rainwater harvesting. He indicated that the Plumbing Code Review Committee had reviewed and adopted the proposal as “Appendix M” of the Oregon Plumbing Specialty Code. This appendix will provide guidance to local jurisdictions and provide statewide consistency.

Motion by Raymond Miller to accept the recommendations of the Plumbing Code Review Committee to include the proposal in the Oregon Plumbing Specialty Code.

Motion passed unanimously.

Appendix P – Sprinkling, new Oregon amendment ([Proposal 52](#))

Ernie Platt, Oregon Home Builders Association (OHBA), discussed Oregon’s long tradition of a uniform building code. He expressed concern that local control would fragment the state’s uniform code and would open the door to code deviation between localities. A group of interested parties recently began to study the variety of issues about residential sprinklers. Mr. Platt indicated that fire agencies could better plan and budget for equipment and staff if they knew what fire suppression systems would be in place. He also discussed the development planning changes that could be used to offset the economic impact of residential sprinkler installation. He reported that the recommendation of the Oregon Home Builders is to not adopt this appendix until more specific information about offsetting options can be studied.

Appendix P – Sprinkling, new Oregon amendment ([Proposal 53](#))

Gary Marshall, Oregon Fire Chiefs and Fire Marshals Association, distributed his [written testimony](#) and discussed the risks faced by citizens from residential fires. He also discussed ongoing and increasing challenges faced by jurisdictions that are unable to fund staff and equipment for proper fire protection service due to the economic impact of Measure 37 and other land use decisions. These challenges result in an increase of fire response time and a reduction of service and safety levels. Although smoke alarms can be effective, they are often not operating properly and some people cannot hear or respond to them. The fire service is in need of additional tools to reduce risk. Residential fire sprinkler systems are designed to prevent flashover thereby reducing the risk of fire spread and allowing residents more time to escape a burning home. He urged the committee to adopt Appendix P with amendments. Chief Marshall answered questions from the committee regarding fire loss statistics.

Committee member Chuck Day questioned Chief Marshall about the percentage of loss compared to the cost of requiring residential sprinkler systems. Mr. Day felt that the increased costs of requiring these systems could prevent people from getting into safer, affordable housing. Chief Marshall felt that developers were creating homes that were not affordable by adding optional items.

Committee members discussed fire suppression between property lines in row houses. Eric McMullen, Oregon Fire Marshals Association, indicated that the intent of the scope of Appendix P would be for any R-3 occupancy.

Mr. McMullen, distributed and discussed [additional amendments](#) to Proposal 53. Mr. McMullen detailed the trade offs designed in the amendment that would offset some of the expense that the proposal would require such as hydrants, water supply, accesses and turn-arounds. Mr. McMullen answered questions from the committee about fire suppression tools, definition of terms and the impact of local jurisdiction dispute resolution.

Committee members pointed out that residential sprinklers were discussed at a national level during International Code Council (ICC) meetings in Rochester and in Orlando and was defeated at both meetings. Mr. McMullen indicated that a percentage of testimony in Rochester centered around local control and some of the testimony that defeated the matter was based on local level control. Mr. McMullen pointed out there are several parts of the code that vary between jurisdictions, such as snow and wind loads and building heights.

The process of approving sprinklers on a local basis through state avenues was discussed. Also discussed were those times when residential sprinklers were required by certain conditions. Chief Marshall indicated that water supply and good access are of concern, but the real concern in this matter is response time, lack of resources and service delivery.

The committee took a short break at this time.

Steve Bryant, League of Oregon Cities, said that one of the unfortunate ramifications of Measures 5 and 50, the property tax limitation measures, is a growing disparity between what communities can afford in the way of public services. Oregon communities have very different public safety

service levels and all Oregon communities are working very hard to find new operational efficiencies. He indicated that he supports Proposal 53 as a significant optional tool. All tax revenue that accrues in new development in urban renewal districts goes to the urban renewal district agency and is not available for public services. Cities are prohibited from using those funds for operational expenses. Many fire services depend on tax revenue for funding and are looking at other tools to help address fire service needs. He indicated that he was the victim of a home fire and would have invested in a residential sprinkler system had he been aware of its availability. Mr. Bryant relayed the details of a recent fire incident during which the fire service responded in five minutes, but a resident still died of smoke inhalation.

Dan Patterson, City of Medford, supports Proposal 53. He reported that in 1979 his city had approximately 1200 calls per year. In 2005 the City of Medford received approximately 10,000 calls, but the city had the same amount of personnel as it did in 1979. After researching available tools, the fire department and the city council were interested in exploring the potential of residential sprinklers. Chief Patterson contacted Richard Rogers, at the Building Codes Division, in 2006. Mr. Rogers indicated that, pursuant to Oregon Revised Statutes, the division was not able to approve residential sprinklers. Chief Patterson said that the adoption of Appendix P is very important to their local jurisdiction.

Guy Sperb, City of Oregon City building official, reported that Oregon City had contracted with a fire service because the city could no longer afford its own. The first fire service hired by Oregon City notified the city that they were not renewing their contract because it was not cost effective. Oregon City hired a different fire service and recently received a notice from the new company that the contract could be renewed, but at a much higher cost than the original contract. Mr. Sperb said that the city had passed a bond four years ago to build a fire station. The station still sits empty because the city cannot afford to staff it. He had been at the ICC hearings in Orlando and Rochester and pointed out that the matter that was defeated was the outright adoption of mandatory sprinkler system in all houses. Mr. Sperb discussed the increase in home size since the 1950s.

Terry Lucich, City of Carlton, reported that he is the part time fire chief of two small communities and is in support of Appendix P. Small towns often do not have the infrastructure to deal with growth. He reported that with many residents commuting to Portland, his all volunteer department does not have staff during a large part of the day. He said that his community also had a struggle with water supply and police to enforce access. Sprinklers would be an effective tool in fire protection.

Randy Simpson, Oregon State Fire Marshal, distributed and discussed a [document expressing support of Appendix P, with accompanying letters](#). He discussed statistics comparing Oregon and Scottsdale, Arizona, a fully sprinklered community. Sprinklers have been used to provide fire protection in areas of rapid growth and development, reducing the need for large expenditures in public fire protection. Volunteer recruitment of fire fighters is dropping drastically every year; eighty percent of Oregon's fire fighters are volunteers. He said that every person in the room would be affected by a home fire. The cost for fire protection would be irrelevant if the statistic represented in fire loss was a personal family member. Mr. Simpson reported on a decrease in time available to escape a home fire due to increased smoke danger.

Chairman Bridges clarified that OHBA position is that the local option should be addressed but his organization is not in support of the amended proposal to Item 53 because there are issues that need to be resolved. More time is needed to identify the specific items that need to be included as part of the Appendix P proposal and reach consensus. At the model code level, the National Association of Home Builders has asked International Code Council (ICC) to propose a committee to address the issue of reasonable sprinkler systems for one- and two-family dwellings. A manufacturer of sprinkler systems has also indicated that a lower cost system is being created. The ability to embrace new technology should be included in any proposal, as opposed to being restricted to National Fire Protection Association (NFPA) 13D and 13R systems. A new proposal could be presented and acted upon as part of the interim code cycle.

Motion by John Caul to disapprove Proposal 52.

Ayes – Caul, Lampella, Seymour

Nayes – Bridges, Day, DeHarpport, Miller

Motion failed.

Motion by Chuck Day to adopt Proposal 52, which would not adopt Appendix P in Oregon.

Ayes – Bridges, Day, DeHarpport, Miller

Nayes – Caul, Lampella, Seymour

Motion passes.

Lampella and Day encouraged the parties to continue working on a proposal that could be adopted through the interim code adoption cycle.

Motion by David DeHarpport not to approve Proposal 53, based on previous action.

Ayes – Bridges, Day, DeHarpport, Miller

Nayes – Caul, Lampella, Seymour

Motion passes.

Chapter 11 – Energy Efficiency, new Oregon amendment

Alan Seymour and Betty Merrill, Department of Energy (DOE), distributed and discussed [proposed building envelope requirements](#), [proposed labels for lighting fixtures](#), and a [proposed additional measures tables](#). Staff distributed the DOE [proposed Chapter 11 code changes](#). Mr. Seymour and Ms. Merrill discussed a [presentation from the Department of Energy's](#) code change proposals.

Governor Kulongoski's global warming initiative proposes a 15% reduction in greenhouse gases by 2015, including an increase in energy efficiency by reducing managed usage through the codes by the same date. The Department of Energy's proposal implements these initiatives for residential structures. Energy efficiency conserves Oregon's natural resources, stimulates new technologies and enhances economic development. The objective of the proposal is to increase performance of the conditioned space of a residence while leaving current construction practices unchanged and giving credit for advanced framing and new technology construction techniques.

Mr. Seymour discussed technical aspects of the proposed changes and the philosophies behind the recommendations. He discussed alternate method option methodology. Mr. Seymour offered proposal information about affordable housing, high efficiency ceilings, windows and lighting. He indicated that fifty percent of the installed lighting fixtures in regulated buildings would need to have compact fluorescent, linear fluorescent or have forty lumens per watt. Training will be offered through industry, code compliance tools will be developed and testing entities will be listed. Education pieces will also be developed by DOE. Mr. Seymour distributed and discussed information about [prescriptive envelope requirements](#).

Ms. Merrill discussed their concerns about transition time. The standards of some programs, like Energy Star, will need to be reset. The Department of Energy worked with these entities to formulate a transition plan that would target April 1, 2008, and would offer the same incentives for tax credits for portions of these measures that meet standards through 2008. The incentives for existing programs would continue through the transition with new standards in place post-transition.

Gary Lampella left the meeting.

Committee members discussed the expected impact of the proposal, duct system requirements for conditioned space and other technical requirements.

Tom Eckman, Northwest Power and Conservation Council, indicated that his organization had been hired to complete an energy and economic analysis for DOE's proposed code changes. He distributed and discussed a [benefit and cost analysis](#) summary based on the total cost of home ownership to include down payments, principal, interest, taxes, insurance and energy costs. Energy costs have gone up and mortgage costs have gone down making it more economical to spend capital than it is to purchase energy. Investing in more efficient energy strategies offset long term escalating costs. Mr. Eckman answered questions about timeframes, climate zones and other calculations used to formulate the analysis, cost issues for zonal systems, and performance options. He indicated that energy savings offset increased mortgage costs after tax.

Brady Peeks, Oregon Department of Energy, answered questions about the proposed percentage of requirements and types of high efficiency lighting and potential compliance methods. Mr. Eckman answered questions about proposed exterior and interior lighting standards and efficiencies.

Jeff Harris, Northwest Energy Efficiency Alliance, stated that his organization is a non-profit funded by the electric utilities in the northwest region to promote energy efficient products and services in the northwest area. He expressed his support of the proposal as a good step forward for the State of Oregon because it maintains Oregon's reputation nationally as being a leader in energy efficiency codes, delivers simple and enforceable energy codes, and it is based on experience and data collected in this area. In their four state area, over 2500 homes have been built to Energy Star standards. Those standards have lighting requirements similar to those in DOE's proposal. There have been no significant problems in meeting those lighting standards.

Some concern was expressed about making requirements mandatory in a market that has voluntarily embraced many energy efficient concepts and products.

Gary Bauer, Northwest Natural Gas, said that legislature took up the issue of mandating a ninety percent or greater furnace for propane and natural gas. His organization opposed that in the legislative process because of the lack of cost effectiveness. Northwest Natural supports the concept of a menu approach rather than mandating requirements. Mr. Bauer stated it is better for the customer and the industry because it provides more options.

Lana Butterfield, Northwest Propane Gas Association, supported the concept of menu choice and is not in favor of mandating the requirements. She indicated that her organization is in support of Chapter 11.

The committee took a lunch break.

Brady Peeks, Department of Energy, discussed the relationship of “at code” and “above code” programs. Energy Star homes are close to reaching federal thresholds to earn federal tax credit on energy efficient homes. His agency is positioning itself to be able to certify those tax credit homes. With increased standards the agency would be able to get quite a few homes through the tax credit process, which would bring \$2,000 to the builder of the home as a federal tax credit. He reported that legislature just passed the bill that would make tax credits available to high efficiency homes. New “above code” programs could earn up to \$3,000 in tax credits. He reported that his agency expected to see fifteen million compact lamps sold this year, illustrating that the market is adopting this kind of lighting voluntarily.

Kendall Youngblood, Energy Trust of Oregon, expressed the organization’s support of the revisions to the Oregon Residential Specialty Code. Her organization currently implements the Energy Star program. The program’s goal is to transform the new construction marketplace so that efficient home building practices and technologies become standard. In 2006, two and a half years after the program was launched, over nine percent of all homes in the program’s area met or exceeded the fifteen percent savings goal. This building code change will ensure that, going forward, every house built in Oregon will be highly efficient, will reduce strain on energy supplies and will offer environmental benefits. If the code change is approved, Energy Trust will continue to train builders on the best and most cost effective ways to meet the fifteen percent requirement. They will also provide financial incentive to builders to offset the costs of training and higher efficiency equipment. Builders who are already constructing to Energy Star levels should have no problem in meeting the proposed code and builders who are not yet involved in the program will have a year of Energy Star’s support to reach those standards. In 2009 the Energy Star standard will increase to be fifteen percent more efficient than the new code and the organization will continue to work with builders to help make new homes in Oregon efficient and environmentally friendly.

Committee members discussed various proposed standards, code requirements, editorial problems in the proposal, lighting standards, recommended clarifications in definition, climatic differences in the state and certification and enforcement processes.

Motion by Raymond Miller to defer action on the proposal until June 19, at which time the Department of Energy could present an amended proposal.

Motion passed unanimously.

Chapter 6

R602.3, R 602.4, 602.5, new Oregon amendment ([Proposal 22](#))

Robert Rice, Josephine County Building Safety, said that code is based on platform or balloon framing. Where vaulted trusses are used, the gable end truss should be vaulted and the wall should be framed up to the bottom of the vaulted truss. His code proposal clarifies code language in this section to require that studs be supported top and bottom in the instance of vaulted trusses. The committee discussed accepted alternatives in gable wall construction.

Committee members discussed situations involving various trusses constructions that are complicated by perpendicular walls and recommended more clear language addressing these situations. The committee also discussed language that could be construed to require the approval of an engineer for situations that should not require that approval.

Darrell George, City of Portland, said there seemed to be substantial builder confusion concerning what is required for an unsupported gable in a wall utilizing a vault. Clarification for support requirements will remedy problems caused by that confusion. He offered his support of the proposal with some modification to require balloon framing or other methods approved by the building official.

Motion by Raymond Miller to adopt the new proposal to provide clarification to the code, with the requirement for interior wall bracing deleted and a modification to R602.3 to add “or other methods approved by the building official.”

Motion passed unanimously.

R602.9, new Oregon amendment ([Proposal 24](#))

Mr. Rice discussed his proposal about cripple walls. Committee members discussed the history of the code section’s language and agreed that current language provided the clearest and most simple language to address this section.

Motion by Raymond Miller not to approve the proposal.

Motion passed unanimously.

David DeHarpport left the meeting.

R602.10.2, R602.10.2.1, R602.10.11.4, new Oregon amendment ([Proposal 28](#))

Mr. Rice discussed his proposal to clarify the requirements of cripple wall lateral bracing. Committee members discussed interpretation of code language.

Motion by Chuck Day not to approve the code proposal because it is based on proposed code changes that were not adopted.

Motion passed unanimously.

R602.10.8, R602.10.8.1, R602.10.8.2, R602.10.8.3, new Oregon amendment ([Proposal 32](#))

The committee agreed to hear Proposal 32 on August 2.

Appendix N – Low-rise Multiple-family Dwelling Construction,

Appendix N, new Oregon amendment ([Proposal 50](#))

Eric McMullen, Oregon Fire Code Committee and the office of State Fire Marshal, presented the organization's proposal to adopt and amend Appendix N. He reminded the committee that Appendix N had been moved from the residential code to the structural code with no amendments, but still falls under the authority of this group. The proposed amendment requires fire sprinklers in all multifamily dwellings, and takes the language back to model code ideology. Chairman Bridges questioned townhouse definitions and exemptions and the fire separation required by code.

Richard Rogers, structural program chief, indicated that the code offers two paths of compliance, using the body of the code or using the appendix. If a townhouse is built under Appendix N, the structure would actually be an apartment and would not be an R3, it would be an R2 and would be sprinkled accordingly. A townhouse separated by two hour walls is an R3, per the townhouse provisions of the code. The provision about 13R would come into play only if a builder chooses to build under Appendix N as opposed to building under the Oregon Residential Specialty Code. A townhouse, by definition of Appendix O, is not a multifamily dwelling.

Mr. George said that by moving Appendix O into the body of the code, townhouses can be built as individual dwellings. If a builder does not want to meet the requirements of that code section, the builder can build under Appendix N, and the dwelling would no longer be an R3. Only at that point is the dwelling a multifamily R2 and there would not be a requirement for two hour walls. However, at that point the dwelling would have to be sprinkled if this proposal was adopted.

Committee members discussed the requirements of sprinklers during the repair of substantial damage to a structure. Sprinkler installation requirements would be phased in based on the percentage of substantial damage. If less than fifty percent of a structure is damaged in a fire, sprinklers would be required only in those units that were damaged. If the structure is damaged by fifty percent or more, sprinklers would be required throughout the structure.

Mr. George pointed out that substantial damage is set at twenty-five percent. Any damage less than twenty-five percent is not substantial and would not engage the sprinkler requirements during the repair of that damage.

Motion by John Caul to adopt Proposal 50 amending Appendix N.

Motion passed unanimously.

Appendix N, new Oregon amendment ([Proposal 51](#))

Jim Schwager, City of Portland Fire Marshal's office, presented his proposal that would amend Appendix N. He distributed [pictures of a fire](#) and his [written testimony](#). His proposal would require a sprinkler in the stair alcove where stairs provide the sole means of egress in low-rise apartment buildings with sprinklers. Egress access protection is not required by NFPA 13R.

Motion by Raymond Miller to adopt Proposal 51 amending Appendix N because it fills a gap in model code.

Motion passed unanimously.

Chapter 1 – Administration, new Oregon amendments

Peggy Collins, Flood Plain Task Force, distributed and discussed the [task force's recommendations](#). Mr. Ewert noted that the recommendations may be renumbered or reformatted based on other changes to Chapter 1.

Motion by Raymond Miller to adopt the recommendations of the Flood Plain Task Force as presented by Ms. Collins.

Motion passed unanimously.

The committee adjourned at 3:00 p.m.