





2015
BUILDING CODE UPDATE



September 8, 2016

Presented by:
Dave Peden, S.E. – Coffman Engineers
Dean Giles, AIA – City of Spokane

Presented to:
 **AIA**
Spokane

Outline of Presentation

- ▶ State Codes Effective July 1, 2016
- ▶ What is our Building Code?
- ▶ Administering the Building Codes?
- ▶ State Building Code Process
- ▶ What are some significant model Code updates? (Building/Fire)
- ▶ What are some significant State Amended Code updates? (Building/Fire)
- ▶ What is being proposed for local amendments? (Building/Fire)



What is our Building Code?

- ▶ The Codes were adopted by the State Legislature and were effective July 1, 2016
- ▶ 2015 International Building Code with statewide amendments
- ▶ ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, with statewide amendments
- ▶ 2015 International Residential Code with statewide amendments
- ▶ 2015 International Mechanical Code with statewide amendments
- ▶ 2014 Liquefied Petroleum Gas Code (NFPA 58)
- ▶ 2015 International Fuel Gas Code (NFPA 54) for LP Gas
- ▶ 2015 International Fire Code with statewide amendments
- ▶ 2015 Uniform Plumbing Code with statewide amendments
- ▶ 2015 Washington State Energy Code
- ▶ 2014 National Electrical Code (NFPA 70) -- Please see the Department of Labor and Industries for information on the adoption and amendment of the National Electrical Code.

Administering the Building Codes

- ▶ Local jurisdiction Building & Fire Codes are required to include the minimal provisions adopted by the State (RCW 19.27.031).
- ▶ The state building code required by this chapter shall be enforced by the counties and cities. Any county or city not having a building department shall contract with another county, city, or inspection agency approved by the county or city for enforcement of the state building code within its jurisdictional boundaries. (RCW 19.27.050)
- ▶ Local jurisdictions may amend the State adopted/amended Code – but amendments cannot be less restrictive (RCW 19.27.060).

State Building Code Process

- ▶ Washington State Building Code Council (SBCC) - Created to advise the Legislature on building code issues and to develop the building codes used in Washington state.
- ▶ State Building Code updated on a three year cycle
- ▶ Rule-making provides a process for amendments to national and state codes
- ▶ All SBCC meetings are public. Public input and involvement is critical to the code development process.
- ▶ Public can submit code amendment proposals.

State Building Code Process

- ▶ Technical Advisory Groups (TAGs) include experts in design and construction
- ▶ Code language is developed by technical experts, council members, and staff
- ▶ The code is developed through open meetings and public hearings, including TAG meetings for review of each code.
 - Fire Code - Dave Kokot
 - Residential Code - Jim Tinner
 - Building Code - Dave Peden
 - Plumbing Code - Steve Simpson
 - Mechanical Code - Eric Vander May
 - Energy Code - Duane Jonlin



State Building Code Process

- ▶ Standing Committees made up of Council members are also established for further review and consideration of proposals after the TAGs have made an initial recommendation.
 - Building, Fire, Plumbing Committee
 - Mechanical, Ventilation, Energy Committee

- ▶ SBCC makes final recommendations to legislature late in the year prior to adoption year.

State Building Code Process

- ▶ SBCC Website - <https://fortress.wa.gov/ga/apps/SBCC/>
- ▶ Download the State Amendments
- ▶ Monitor SBCC activities including meeting schedules and agendas.
- ▶ Please participate in code process.



What are some significant model Code updates?

IBC:

- ▶ In general, most changes were in format and renumbering that do not affect the actual requirements.
- ▶ Chapter 34 Existing Buildings is deleted- refer to IEBC for code requirements.
- ▶ 304.1 food processing and commercial kitchens (not part of restaurants) less than 2500 sf may be B occupancies instead of F-1.
- ▶ Table 1004.1.2 occupant load factor for M occupancies is now uniform for all floors (60); in response to current retail usage. Simplifies calculations and reviews.
- ▶ 2902.3 public toilet facilities are not required for quick transaction spaces having a public access area of 300 sf or less.

What are some significant model Code updates?

IEBC:

- ▶ 406.3, 702.5 window replacements exempt from emergency egress requirements; may use the largest replacement window that would fit into existing opening
- ▶ 410.8.10 in order to provide accessible features, the number of toilet fixtures may be reduced by one
- ▶ 706 a new section on reroofing is added

What are some significant model Code updates?

IRC:

- ▶ R315 Carbon monoxide (CO) detectors, when required, must be hard wired with battery backup.
- ▶ R324, R325 and R328: new sections are added that address solar energy systems, adult family homes and mezzanines.
- ▶ R403.1 footing width and thickness is also determined by snow or roof live load. *Footing sizes are increased significantly. A footing size calculator was developed and adopted locally that is required by the City of Spokane, and adopted by several other local jurisdictions.*
- ▶ R507.5, R507.6, R507.7 deck joist spans, beam sizes, restraint at ends and post sizes are described in tables, separate from interior framing member size/span charts.
- ▶ R802.4, R802.5 ceiling joist / rafter span table has been revised to reflect tested strength of available inventory.

What are some significant State Amended Building Code updates?

IBC

- ▶ 306.2 Marijuana processing and growing of more than 15 plants is classified as an F-1 occupancy
- ▶ 310.4 removes assisted living and residential treatment facilities from R-2 classification
- ▶ 427.1 electric vehicle charging is required for new construction of type B, R-1 and R-2 *(if 20 spaces provided)*
- ▶ 2902.2 separate toilet facilities are not required for drinking/dining facilities when the occupant load is 30 or fewer (unisex rooms are acceptable)
- ▶ 3002.4 an elevator car must accommodate stretchers in R-1, R-2 and I occupancies regardless of the number of stories served

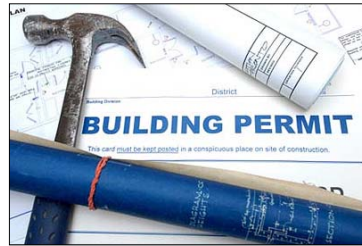
IRC

- ▶ R101.2 Lodging homes with 1-2 guest rooms are not required to have fire sprinklers
- ▶ *R802.5, R802.6 State required a 60 psf loading for exterior decks and balconies; it was amended back to 40 psf by emergency rule.*

What is being proposed for local Building Code amendments?

Adoption of 2015 codes:

- ▶ 17F.030.010 Boiler and Pressure Vessel Code
- ▶ 17F.040.010 Building Code
- ▶ 17F.080.010 Fire Code
- ▶ 17F.090.010 Mechanical Code
- ▶ 17F.100.010 Plumbing Code



What is being proposed for local Building Code amendments?

Correction of references of previous codes

- ▶ 17F.020.080 code reference updated
- ▶ 17F.030.010 code references updated
- ▶ 17F.040.010 code references updated, deletes duplicate language
- ▶ 17F.040.030 code references updated
- ▶ 17F.040.040 deletes sections that allow code waivers; not allowed under adopted codes
- ▶ 17F.040.070 duplicates adopted codes; delete section
- ▶ 17F.040.105 updated design criteria for wind and seismic
- ▶ 17F.040.125 duplicates adopted codes; delete section
- ▶ 17F.040.130 code references updated
- ▶ 17F.070.010 code references updated
- ▶ 17F.070.070 duplicates adopted codes; delete section
- ▶ 17F.070.250 code references updated
- ▶ 17F.070.260 code references updated
- ▶ 17F.070.270 duplicates adopted codes; delete section
- ▶ 17F.070.300 code reference updated
- ▶ 17F.070.360 duplicates adopted codes; delete section
- ▶ 17F.090.010 code references updated, deletes duplicate language
- ▶ 17F.100.010 code references updated, deletes duplicate language

What are some significant Model Code and State Amended updates?

Fire Code

- ▶ 105.7.9 Gates and barricades across fire apparatus access roads
 - Requires a construction permit for approval.
- ▶ 105.6.4.9 Marijuana Extraction Systems
 - Operational permit.
- ▶ 105.7.19 Marijuana Extraction Systems
 - Construction permit.
- ▶ 308.1.10 Decorative Open Flame Tables
 - Requires Fire Official approved method to protect occupants from using or exposure to flame.

What are some significant State Amended updates?

Fire Code

- ▶ 903.2.1 Group A
 - Sprinklers shall be provided throughout the story and all stories to, and including, the levels of exit discharge.
- ▶ 903.2.1.6 Group A occupancies on roofs
 - Requires the entire building to be sprinkled.
- ▶ 903.2.1.7 Multiple fire areas
 - When the combined occupant load using a single egress component exceeds 300 sprinklers would be required.
- ▶ 904.11 Automatic mist systems
 - Recognized as an alternative method (per its listing).

What are some significant State Amended updates?

Fire Code

- ▶ **904.12 Commercial cooking system**
 - Requires signage with type, size and arrangement of cooking appliances under each Class I hood).
- ▶ **1103.4.1 Group I-2 and I-3 occupancies**
 - Requires 1-hour fire separation in existing hospitals and jails to protect openings connecting 2 or more stories.
- ▶ **1103.4.3 More than five stories**
 - Vertical protection has been clarified that not only fire separation is required, but smoke as well.
- ▶ **3105 Temporary Stage Canopies**
 - Permit is required for construction requiring construction documents, designation of responsible party, and an operations plan.

What are some significant State Amended updates?

Fire Code

- ▶ **Chapter 38 - New Chapter addressing the requirements for potential hazardous processes or environments for this industry.**
 - Extraction – using flammable gases or liquids, high pressures
 - CO2 padding for growing facilities
- ▶ **Requirements include:**
 - Specific reports and analysis for equipment that is not Listed by approved agencies (UL, ETL, etc.)
 - Gas detection
 - Construction and separation

What are some significant State Amended updates?

Fire Code – Appendices

- ▶ **New Table B105.1(1) Fire-flow for One- and Two-Family Dwellings, Group R-3 and Group R-4 Buildings and Townhomes**
 - Places fire-flow requirements and allowed reductions in an easy-to-read table.
- ▶ **Table B105.2 Fire-flow for Buildings Other Than One- and Two-Family Dwellings, Group R-3 and Group R-4 Buildings and Townhomes**
 - New reductions give more credit for sprinkler systems and clarifies reductions for NFPA 13 vs NFPA 13R sprinkler systems.
- ▶ **New B105.3 Water Supply for Buildings with an Automatic Sprinkler system**
 - Clarifies site water requirements as the greater of either sprinkler + hose demand OR required fire flow (not cumulative).

What are some significant State Amended updates?

Fire Code – Appendices

- ▶ **Section C103 Fire Hydrant Spacing**
 - Exception is changed to permit increase in spacing of up to 10% without approval of the Fire Dept. where existing hydrants exist (locations already established and will not be allowed to be relocated)
- ▶ **C104.1 Existing Fire Hydrants**
 - Guidelines for existing fire hydrants in adjacent properties to be allowed for site fire flow of adjacent buildings.

What is being proposed for local Fire Code amendments?

17F.080.010 Adoption of International Fire Code

- ▶ A – Changed the adopted version from 2012 to 2015
- ▶ B.7 and B.8 – Revised reference
- ▶ B.10 – Added clarification of the intent of the amendment is not to replace the paragraph, but to add to it.
- ▶ B.12, B13, and B14 – Revised reference
- ▶ B.13 – Removed first part of amended sentence to accommodate change to model language
- ▶ B15, B.16, B17, B18 – Revised reference

What is being proposed for local Fire Code amendments?

17F.080.030 Appendices Adopted

- ▶ **Appendix B**
 - Deleted amendment as model code is less restrictive
- ▶ **Appendix C**
 - Revised Table numbers to match model code changes
 - Remove the sentence in C.1 for maximum distance of 750 feet as the model code now has this language.
 - Removed the model code reference for footnote g as our current allowance is less restrictive

SMC 17F.080.070. Flammable or Combustible Liquids:

- The referenced section number changed in the model code.

SMC 17F.080.090. Additional Definitions

- Section 202: Remove definition of “guest room”. The definition is now in the model code.

What is being proposed for local Fire Code amendments?

SMC 17F.080.110. Fire Alarm System Requirements:

- Revisions to Chart 907:
 - Changes made to the table to match the State WAC for fire alarm.
- B.2 has been revised as the description of the travel distance was not the same as in the model code.

SMC 17F.080.150. Installation Requirements:

- Change reference of Chapter 47 to 80.

SMC 17F.080.270. Fire Equipment Servicer Registration:

- Added "Private Fire Hydrants". Contractors conducting testing for private fire hydrants are required to be registered with the Fire Department. It was recently discovered that this was not codified.

SMC 17F.080.321. Fire Hydrant Proximity to Residential Infill Properties:

- Section is repealed. The language of the ordinance is not included in the model code.

What is being proposed for local Fire Code amendments?

SMC 17F.080.370, 380, 390:

- Revised reference to title of the Director of Water and Wastewater.

SMC 17F.080.400. Inspection Reports of Private Hydrants:

- Revised language for responsibility of hydrant report submission. The owner is responsible for verifying that the reports are submitted.

SMC 17F.080.480. Combined Standpipes:

- Revised language further clarifying the threshold for when fire pumps would be required for buildings. The original language refers to the threshold at 5 floors. The distance of 55 feet is now included as the maximum height.

SMC 17F.080.490. Licensed Marijuana Processor Extraction Requirements:

- Revise the title to better match the industry name and revised language in paragraph B to accommodate changes to the cannabis industry.

Are the Codes Available to the Public?

Code Update Blog:

- To be established

International Codes: Read-Only, Free access

- <http://codes.iccsafe.org/I-Codes.html#all>

Uniform Code: Read-Only, Free access

- <http://epubs.iapmo.org/UPC/>

Washington State Amendments

- ▶ Look under Proposed rules:
 - <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=222>

Spokane Municipal Code 17F

- <https://my.spokanecity.org/smc/?Title=17F>

2015 Adoption of Building Codes

Questions?

