

Plumbing Codes In Washington State

**An Overview of the Issues
2016**

Alphabet Soup?

- **UPC= Uniform Plumbing Code**
 - **IAPMO= International Assn. Of Plumbing and Mechanical Officials**
 - **IPC= International Plumbing Code**
 - **ICC= International Code Council**
 - **ICBO= International Conference of Building Officials (now ICC)**
 - **SBCC= State Building Code Council**
 - **TAG's= Technical Advisory Group**
 - **ANSI Standards= American National Standards Institute**
 - **NFPA= National Fire Protection Association**
-
- Making Sense of It All??

UPC- What is it?

- **UNIFORM PLUMBING CODE**
- **Originated in the 1920's in Los Angeles**
- **Grew to LA County, then the State of California, then Western States**
- **Primarily a West Coast Code**
- **Adopted in Washington in 1972 by SBCC as Statewide "Model Code"**
- **Adopted in Statute in Washington State (it is currently the only statewide adopted plumbing code in Washington State)**
- **16 States have adopted the UPC as the only Plumbing Code**
- **4 States used the UPC in whole or part as their code or as the basis for their code**
- **Used by 15 countries outside of the US**
- **Maintained by IAPMO (International Association of Plumbing and Mechanical Officials)**
- **Joining costs?**
- **It is a complete Plumbing Code**

UPC- What is the benefit of it?

- **ANSI Standard Consensus Code**
- **Joining costs?**
- **It is a complete Plumbing Code**
- **The ONLY ADOPTED PLUMBING CODE in Washington Since 1972**
- **Plumbers are trained and tested for their certification to it by Washington State Labor and Industries (Per Statute)**
- **It is a very prescriptive code....like a cookbook. See Example:**

IPC- What is it?

- **INTERNATIONAL PLUMBING CODE**
- **Produced by ICC (International Code Council) formerly ICB0**

UPC versus IPC- What's the Deal?

- **2 different corporations**
- **2 different business models**
- **Both fighting to be the only plumbing code in the US**

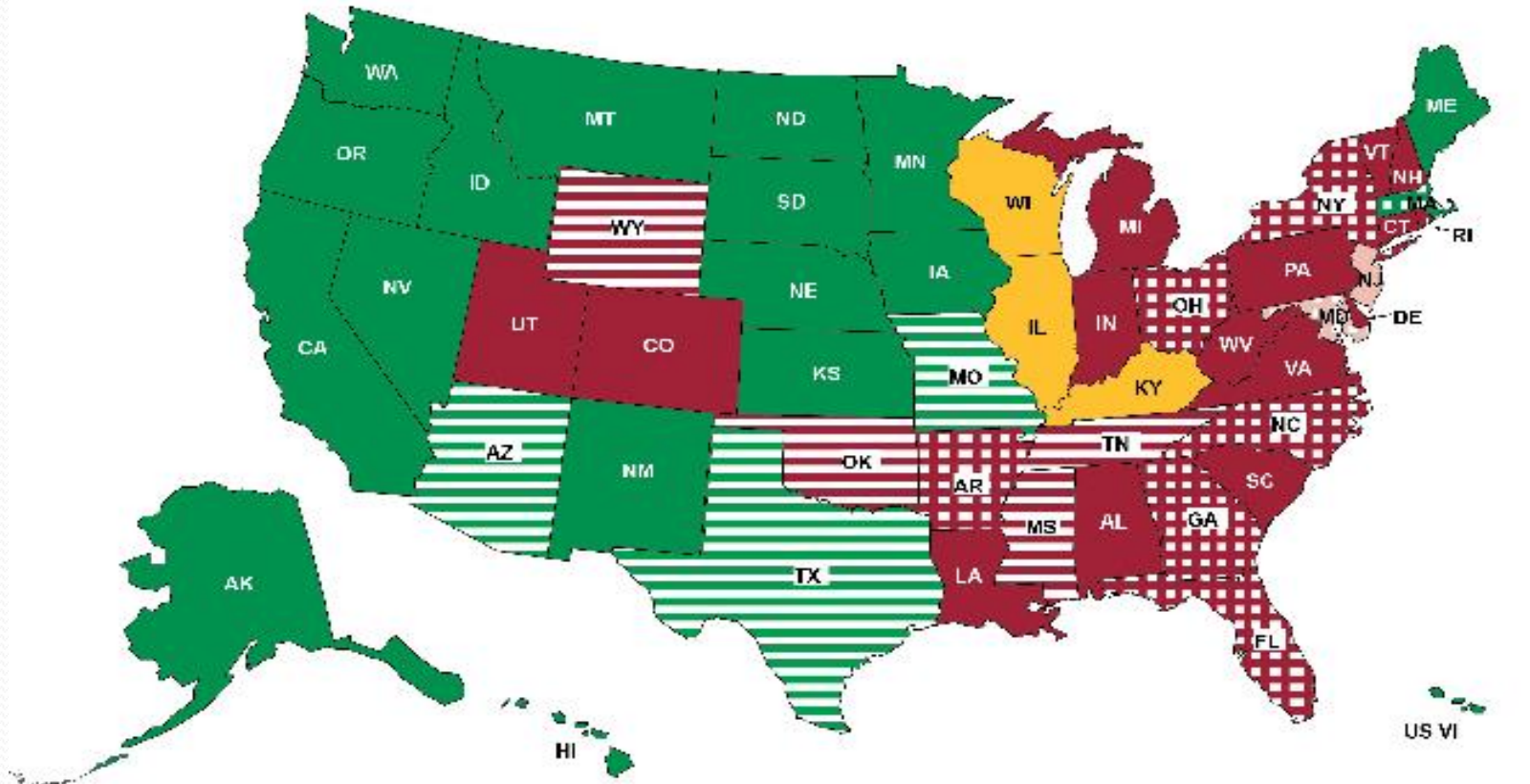
UPC- & it's parent IAPMO

- **Business Model based testing of materials and equipment and the sales of its logo to manufacturers**
- **IAPMO's membership is not limited to building officials**
- **Code is developed through a consensus process and involves a broad base of constituents including the folks who must deal with the consequences of installation standards every day.....**PLUMBERS and CONTRACTORS****
- **That consensus process must meet specific protocols of an ANSI Standard**
- **IAPMO's business model is not code book sales dependent**

IPC- & It's Parent ICC

- **Business Model based on the proliferation and sales of code books**
- **The ICC's membership is only “Building Officials”**
- **Only unelected “Governmental Member Representatives and Honorary Members” get to vote on what is actually in the Code- others may have input, but you must be a member as described above to officially vote on changes**
- **Produced by ICC (International Code Council) formerly ICBO**

Plumbing Code Adoption



Category 1
Statewide use of UPC

Category 2
UPC predominate code used in the state

Category 3
Statewide use of IPC

Category 4
IPC predominate code used in the state

Category 5
State authorized codes based on the UPC

Category 6
State authorized codes based on the IPC

Category 7
Statewide use of NSPC

Category 8
NSPC predominate code used in the state

Category 9
State based or authored by now defunct

Category 10
State authorized code



Source: The IAPMO Group Rev. 1/2013

UPC VS. IPC- What are the differences?

- **UPC**

- **How the Code is Amended**
- **More “Prescriptive”**

- **IPC**

- **Less Prescriptive/Performance based/ Engineering Requirements**
- **Only officially changed/ updated/ amended by unelected “Building Officials” and in many cases, those unelected bureaucrats have areas of expertise which have nothing to do with plumbing systems**
- **Costs more for the tradesman, contractor and ultimately, the consumer**

Definition: Performance Based vs. Prescriptive Codes

- **Performance Based =**
- **Prescriptive =**

Prescriptive Code

- Prescriptive: This term is used to describe how the Uniform Plumbing Code is designed. If plumbing systems are installed to the UPC standard and then future modifications are made to the system, if those modifications continue to meet the UPC installation standards in the book, then the hiring of engineers for the design of the system will be unnecessary.
- Scenario: Plumber shows up to add a sink to a tenant improvement project for an existing building. The waste line and water lines capacities are based on fixture units described in the UPC. The plumber needs only to see the main sizes of the existing piping and tie into those systems based on the fixture units listed in the tables. If those specifications are met, and the installation is done accordingly, no further design costs are incurred for the customer.

Performance Code

- Performance Based: This term is used by the International Code Council to describe their standard for installations. The terminology itself is a bit misleading. This term really describes the engineering of a system and it looks at every system as a design issue standing on its own. There are a few inherent problems with this view of plumbing systems. First, as long as the original system designs for a building system are documented and updated as changes are made, additions to the system can be engineered into the new system. Many times though the documentation and the documentation of any engineered upgrades are not available or good records are not kept. So if the systems are engineered individually (as done in the IPC) in their original state, modifications to the systems could be problematic if they are not engineered. For a contractor and the plumber in the field, this just creates more time, energy and money needing to be spent on things other than the actual installation of the system.
- Scenario: Plumber shows up to add a sink to a tenant improvement project for an existing building. The building system document will need to be accessed and depending on what the contractor discovers, an engineer will need to look at the system requirements and determine what will need to be done by the plumber to complete the project to satisfy the engineering requirements that make the whole system work.

ICC's War of WordsNot Facts

IPC Proponents claim 30% to 50% savings on a residential plumbing system based on using the IPC versus the UPC

Lets Break This Down

Standard 3 bedroom, 2 bath House

Number of Fixtures = the Same

Water Pipe Required = the Same

Waste Pipe Required = the Same

Where could those projected savings come from????

Elimination of Vent Piping for Fixtures?

Replacing ALL Vent Piping with AAV'S??

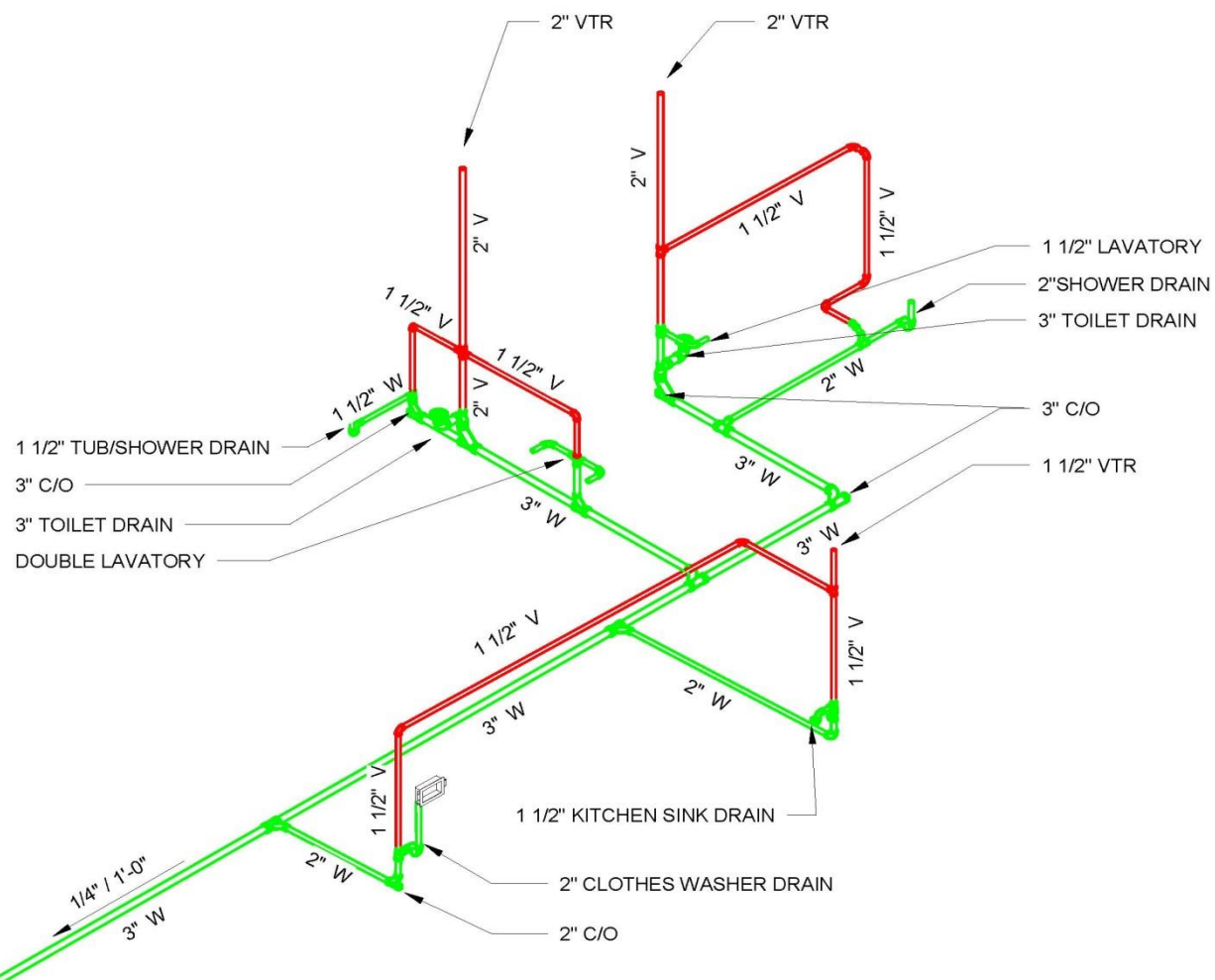
THE MATH DOES NOT ADD UP....AND FOR CONSUMERS, YOU TRADE A SYSTEM OF VENTING WHICH IS FAILSAFE FOR A SYSTEM THAT CAN AND DOES HAVE COMPONENT FAILURES WITHIN THE BUILDING ENVELOPE.....IS IT WORTH ANY SAVINGS PROJECTED?



The Facts

**Typical 3 Bedroom House with 2
Baths, 1 Kitchen, and 1 Laundry
Room**

**Vent Piping....what is it and why is it
necessary??**



The Facts

What is an AAV?

Air Admittance Valve

Proponents argue that they save money by eliminating unnecessary piping. Some say that these devices always work.

The fact is: these devices are often installed inside of walls (despite the code) and unfortunately for consumers they do fail.

Piped vents have no mechanical parts that could fail. They are a failsafe and time tested method for venting sewer gases out of the house.











ICC's War of WordsNot Facts

How far will the **ICC go to force its will on the State- Contractors- Trades ???**

For many years part of the **ICC's argument to move to the **IPC** included the fact that the UPC did not have “Circuit Venting” as an approved method in the body of the Code.**

Circuit Venting was in the appendix as an “alternative means and method” and per IAPMO’s regular course of adoption, in the 2015 version of the UPC Circuit Venting was adopted into the main body of the UPC.

At the first round of work by the SBCC to adopt the 2015 UPC, the ICC Representative, Kraig Stevenson proposed an amendment removing Circuit Venting from the 2015 UPC.

YOU CANNOT MAKE THIS STUFF UP

The Effects of Not Passing SB5139*

INTERNATIONAL PLUMBING CODE BOOKS - \$550

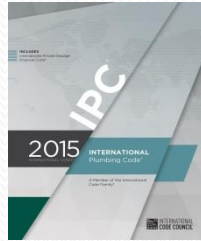
UNIFORM PLUMBING CODE BOOK - \$124

**PLUMBERS WOULD NEED BOTH SETS SO THEY COULD COVER
MULTIPLE CODES IN WASHINGTON STATE.....WHERE WOULD THIS
END?????**

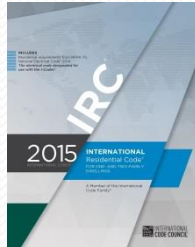
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There is a Difference

The Choice is Yours...



\$89.00

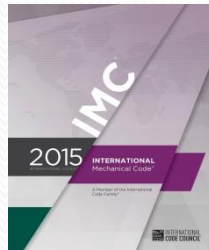


\$134.00

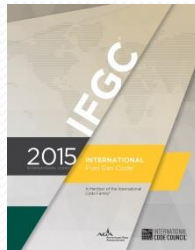


\$139.00

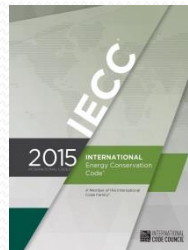
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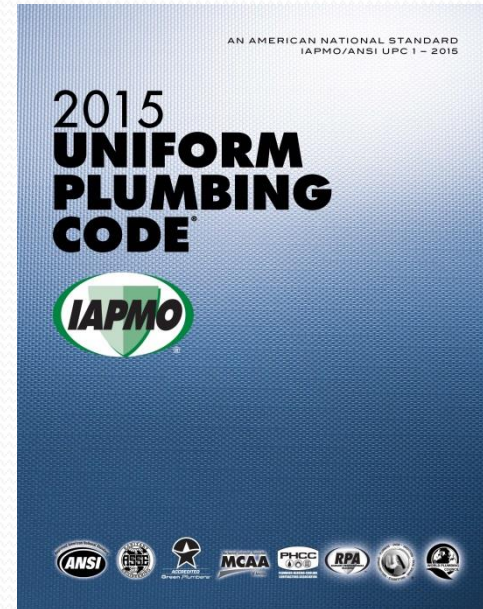
\$84.50



\$84.50



\$46.50



\$119.00

Total \$577.50

Does not include medical gas code

The IPC requires a plumber to purchase a total of six I-Codes for plumbing installations in addition to NFPA 99 for Medical Gas Systems.

The UPC is a complete, tabbed document which gives every provision necessary for the installation of all plumbing systems

Other Things Said About the **UPC** by **ICC**

The **IPC Claims that the code is controlled by the “Union” and that it is full of unnecessary stuff which only benefits the contractor and plumbers in their attempt to make things cost more for the consumer.**

Yet they unable to point to specific instances of this happening within the code as written.

The fact is they are using every tactic they can to push a code change that only they want. No one except the **ICC** is pushing the move to adopt the **IPC** and the only reason they are is to further their corporate interests.



It's all about the \$\$\$\$\$\$\$\$\$\$

We Estimate that the ICC stands to gain:

8000 Plumbers in Washington (times)

Cost of a set of ICC Code Books (they claim you can get them for free online) right??? = \$550

Estimated Revenue Generated for ICC for Every 3 Year Cycle=

\$4,400,000

All of it out of Plumbers and Contractors Wallets (and consumers)



QUESTIONS?