

100-word Description of session:

This session will cover many of the kinds of water heaters and their related plumbing, venting, and/or wiring. It will discuss advantages and disadvantages to different approaches to heating water, as well as focus on newer systems of gas water heaters that are not open combustion. It will explain how to measure amperage on an electric water heater and why home inspectors can and should be checking this. It will discuss expansion tanks and how to test them. It will discuss many of the rules for venting the different types of heaters. There will also be examples of report writing of various defects related to what is being discussed. All these things will help the inspector provide better value to their clients.

100-word bio:

I have been a home inspector for 16 years. Prior to this I was a hands-on, award winning, design/build general contractor, specializing in custom energy efficient homes. I have been an ASHI member for 12 years and served on the Technical Review committee, including currently serving as committee chair. I served 6 years on the Washington State home inspector advisory licensing board, and teach the Plumbing, Electrical, and Building Science portions of the Home Inspection training course at Bellingham technical college. I am also a licensed structural pest inspector. I am also author of a collection of home inspector inspection diagrams.

Bio:

1. BA SUNY Oswego, Oswego, NY, 1971
2. Designer/Builder 33yrs (1971-2004).
3. Taught BOCES, Adult Ed Carpentry, NY State 1979
4. 1979 NYSERDA Passive Solar Design Award
5. Certificate for the Residential Home Inspection Course, Bellingham Technical College, Bellingham, WA, 2004, (160 hrs)
6. 2008-to present, Teacher of the Residential Home Inspection Course at Bellingham Technical College
7. Licensed Structural Pest Inspector, State of WA #67488
8. Licensed Home Inspector, State of WA #220
9. 2 terms, 2012-2018, WA State, Home Inspector Licensing Advisory Board, Education Committee Chair
10. 2006-to present, Adjunct Professor, Bellingham Technical College, Residential Home Inspection Training Course.
11. ASHI member (12 years), ACI, #246514
12. Inspectapedia Technical Review
13. 2012-to present, ASHI National, Technical Review Committee, Current Chair

Session Outline:

Water Heaters and Related Components

1. Venting & Combustion Air
 - a. Natural Draft
 - b. Direct Vent
 - c. Forced Draft
 - d. Vent Clearances
2. Electric Heaters
 - a. Wiring

b. Testing Elements

3. Tankless heaters
 - a. Gas
 - b. Electric
4. PRV's and TPRV's
 - a. Materials and installation
5. Drain Pans
 - a. Tank and On Demand
6. Water heaters used for space heating
7. Expansion Tanks
 - a. Testing tanks
 - b. Other Thermal Expansion Devices
8. Water Temperature and Control
9. Thermosiphon systems

There are 160 slides and will more-or-less be equally distributed time-wise over 180 minutes.